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10/757246

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E GLUTEN/CN 5
E GLUTELIN/CN 5
L4 81 S GLUTELIN?/CN

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FILE LAST UPDATED: 30 Jun 2005 (20050630/ED)

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Searcher : Shears 571-272-2528

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This file contains CAS Registry Numbers for easy and accurate substance identification.

L4 81 SEA FILE=REGISTRY ABB=ON PLU=ON GLUTELIN?/CN
L10 1606 SEA FILE=CAPLUS ABB=ON PLU=ON (L4 OR GLUTEN OR GLUTELIN) (S) (EXTRACT? OR EXT## OR SEPARAT? OR SEP##)
L11 634 SEA FILE=CAPLUS ABB=ON PLU=ON L10 AND FLOUR
L12 11 SEA FILE=CAPLUS ABB=ON PLU=ON L11 AND (EMULSIF? OR EMULSION)

L12 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 01 Oct 2004

ACCESSION NUMBER: 2004:802606 CAPLUS

DOCUMENT NUMBER: 141:295078

TITLE: **Gluten extraction from wheat flour**

INVENTOR(S): Finch, Stephen Patrick

PATENT ASSIGNEE(S): Icm, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 7 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004192896	A1	20040930	US 2004-757246	20040114
PRIORITY APPLN. INFO.:			US 2003-439970P	P 20030114

AB A method is presented for **separating gluten** from wheat **flour** to produce a protein isolate that is at least 90% protein. The method includes at least one **emulsification** step where the starch within gluten masses is exposed. Masses composed of mostly gluten and some starch from a typical agglomeration tank and screen rinse process are processed through at least one **emulsifying** step where the masses are chopped and then drawn through a perforated plate to produce relatively small gluten masses. The relatively small gluten masses from the at least one **emulsifying** step are screen rinsed to remove much of the remaining starch thus producing a protein isolate. The resulting protein isolate gluten product is then dried and processed using conventional methods known in the art.

L12 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 07 Sep 2001

ACCESSION NUMBER: 2001:654735 CAPLUS

DOCUMENT NUMBER: 135:223443

TITLE: Cloning and gene sequence encoding xylanase from *Penicillium griseofulvum*

INVENTOR(S): Jonniaux, Jean-Luc; Dauvrin, Thierry

PATENT ASSIGNEE(S): Puratos N.V., Belg.

SOURCE: Eur. Pat. Appl., 31 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

Searcher : Shears 571-272-2528

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1130102	A1	20010905	EP 2000-870028	20000221
EP 1130102	B1	20041020		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
AT 280231	E	20041115	AT 2000-870028	20000221
CA 2334041	AA	20010821	CA 2001-2334041	20010220
US 2003053999	A1	20030320	US 2001-790070	20010221
PRIORITY APPLN. INFO.:			EP 2000-870028	A 20000221

AB The present invention is related to an isolated and purified polynucleotide sequence from microbial origin, encoding a xylanase. The gene encoding xylanase was isolated from *Penicillium griseofulvum* A160, and encodes a protein 217 amino acids in length. The invention includes a vector comprising said polynucleotide sequence, the recombinant host cell transformed by said polynucleotide sequence, and the xylanase amino acid sequence encoded by said polynucleotide sequence and/or expressed by said recombinant host cell. The enzyme with xylanolytic activity of the present invention, is particularly suited as a bread-improving agent which could improve or increase texture, flavor, anti-staling effect, softness, crumb softness upon storage, freshness and machinability, volume of a dough and/or of a final baked product. A further aspect of the present invention relates to the additive effect of said enzyme having xylanolytic activity with other enzymes, in particular with an alpha-amylase, preferably an alpha-amylase from *Aspergillus oryzae*, or other bread-improving agents like enzymes, emulsifiers, oxidants, milk powder, fats, sugars, amino acids, salts, proteins. Particularly, said enzyme degrades the wheat cell wall components, particularly, the degradation activities lead to a decrease of the **flour** viscosity in the presence of water. Said enzyme may thus advantageously be used in the **separation** of components of plant cell materials such as cereal components, particularly, said enzyme may be used to improve the **separation** of the wheat into **gluten** and starch by the so-called batter process. According to the present invention, said enzyme may be used to improve the filterability and/or decrease the viscosity of glucose syrups obtained from impure cereal starch by subjecting the impure starch first to the action of an alpha-amylase, then to the action of said xylanase. It may also be used in beer brewing when cereal has to be degraded to improve the filterability of the wort or to reuse the residuals from beer production for e.g. animal feed. Said enzyme may be used in feed to improve the growth rate or the feed conversion ratio of animals such as poultry. Another application resides in the oil extraction where oil has to be extracted from the plant material such as the corn oil from corn embryos. The enzyme with xylanolytic activity of the present invention may be used in fruit and vegetable juice processing to improve the yield. According to the present invention, said enzyme may be used in all processes involving plant materials or waste materials, e.g. from paper production, or agricultural wastes such as wheat-straw, corn cobs, whole corn plants, nut shells, grass, vegetable hulls, bean hulls, spent grains, sugar beet, and the like. The effect of the enzyme with xylanolytic activity of the present invention may be further improved by adding other enzymes in combination with said enzyme.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 14 Apr 2000

ACCESSION NUMBER: 2000:240663 CAPLUS

DOCUMENT NUMBER: 132:264451

TITLE: Process for making bread by addition of a gliadin-rich fraction without incorporation of yeast nutrients and **emulsifier**

INVENTOR(S): Yajima, Mizuo; Katahira, Ryouta

PATENT ASSIGNEE(S): Asama Chemical Co., Ltd., Japan; Asama Kasei KK

SOURCE: Eur. Pat. Appl., 13 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 992193	A1	20000412	EP 1999-303207	19990426
EP 992193	B1	20040623		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2000106816	A2	20000418	JP 1998-299131	19981006
PRIORITY APPLN. INFO.:			JP 1998-299131	A 19981006

AB For bread making, a gliadin-rich fraction (preferably ≥ 60 weight% gliadin) is used alone or with a protein hydrolyzate in place of yeast nutrients and **emulsifiers**, or in place of yeast nutrients, **emulsifiers** and shortening (particularly non-natural shortening). The gliadin-rich fraction may be prepared as an **extract** of wheat **gluten** with an aqueous, acidic solution of ethanol, an aqueous acidic liquid or an aqueous solution of ethanol. The protein

hydrolyzate may include 30-80 weight% amino acids and is preferably incorporated in an amount of 0.02-0.1 weight% based on the **flour**. The gliadin-rich fraction may be incorporated into the dough in an amount of 0.5-15 weight%. Thus, **flour** for bread making is prepared by adding 0.1 kg GLIA-A (a product containing $\leq 60\%$ gliadin) to 9.9 kg strong **flour**; the loaf obtained has greater volume and ages less rapidly than the control.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 13 Jul 1998

ACCESSION NUMBER: 1998:430300 CAPLUS

DOCUMENT NUMBER: 129:67104

TITLE: Food quality improvers containing wheat proteins

INVENTOR(S): Yajima, Mizuo

PATENT ASSIGNEE(S): Asama Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

10/757246

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10179048	A2	19980707	JP 1996-354705	19961220
JP 3647177	B2	20050511		
PRIORITY APPLN. INFO.:			JP 1996-354705	19961220

AB The food quality improvers contain 100 weight parts gliadins and/or glutenins and 52-400 weight parts oils/fats and/or 1-200 weight parts **emulsifiers**. The gliadins and glutenins may be **extd** from wheat **glutens** with aqueous acidic alc. solns. The quality improvers enhance dough formation and prevent the aging of wheat **flour** products (noodles, bread, batters, etc.).

L12 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 15 Nov 1995

ACCESSION NUMBER: 1995:919178 CAPLUS

TITLE: Protein functionality in wheat **flour** tortillas

AUTHOR(S): Waniska, Ralph D.

CORPORATE SOURCE: Dept. Soil & Crop Sciences, Texas AandM University, College Station, TX, 77843-2474, USA

SOURCE: Book of Abstracts, 210th ACS National Meeting, Chicago, IL, August 20-24 (1995), Issue Pt. 1, AGFD-193. American Chemical Society: Washington, D. C.

CODEN: 61XGAC

DOCUMENT TYPE: Conference; Meeting Abstract

LANGUAGE: English

AB Protein functionality in wheat **flour** tortillas is affected by ionic, hydrophilic and hydrophobic components and processing conditions. Wheat **flour** tortillas are a chemical-leavened, gluten-structured, flat bread. Some cationic and anionic salts stabilize the gluten structure during mixing. resting. and in the baked product. Water. polyols. sugars and oligosaccharides solvate and stabilize **gluten** structure during thermal processing, Some **emulsifiers** assist the formation and stabilize **gluten** structure while neutral lipids **sep.** and weaken **gluten** structures in the dough and tortillas. Specific proteins and hydrocolloids contributed to the structural stability of gluten and/or baked tortillas. The viscoelastic character of gluten was partially retained after baking (about 60 s above 75C) of wheat tortillas. Improved gluten functionality corresponded to a longer shelf-stability of tortillas.

L12 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 09 Jul 1994

ACCESSION NUMBER: 1994:407861 CAPLUS

DOCUMENT NUMBER: 121:7861

TITLE: Protein extracts in cake mixes.

INVENTOR(S): Nakajima, Tomoko; Koderia, Haruki

PATENT ASSIGNEE(S): Nippon Flour Mills, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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Searcher : Shears 571-272-2528

10/757246

JP 06062813	A2	19940308	JP 1992-235208	19920811
JP 3194057	B2	20010730		
PRIORITY APPLN. INFO.:			JP 1992-235208	19920811

AB A cake mix, that produces considerable amount of foams without use of **emulsifier**, is prepared by **extracting** cereal proteins such as wheat **gluten** and corn **gluten**, with an acidic solution at pH ≤ 6 , or with an aqueous solution containing 10-70 weight % alc., and adding the **extract** 0.1-20 parts by weight to 100 parts wheat **flour**.

L12 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 09 Jul 1994

ACCESSION NUMBER: 1994:407858 CAPLUS

DOCUMENT NUMBER: 121:7858

TITLE: Cake mix composition

INVENTOR(S): Amano, Haruyuki

PATENT ASSIGNEE(S): Asama Kasei Kk, Japan; Amakosu Kk

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06062721	A2	19940308	JP 1991-123307	19910307
JP 3060121	B2	20000710		
PRIORITY APPLN. INFO.:			JP 1991-123307	19910307

AB Cereal proteins such as wheat **gluten** and corn **gluten** are **extracted** with an acidic soln (pH ≤ 6) and/or an alc. (10-70 % by weight) solution, and the fractions (0.1-20 parts by weight) are added to 100 parts **flour** to give a cake mix composition This cake mix produces foams even in the absence of **emulsifiers**.

L12 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 21 Jan 1989

ACCESSION NUMBER: 1989:22561 CAPLUS

DOCUMENT NUMBER: 110:22561

TITLE: Manufacture of modified gluten for production of bread improver

INVENTOR(S): Endo, Shigeru; Nomura, Satoshi; Ishigami, Shinji; Karibe, Sonoko

PATENT ASSIGNEE(S): Nisshin Flour Milling Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 18 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 282038	A1	19880914	EP 1988-103730	19880309
EP 282038	B1	19910731		

Searcher : Shears 571-272-2528

10/757246

R: DE, GB

JP 63222657	A2	19880916	JP 1987-57645	19870312
JP 06040800	B4	19940601		
JP 63222641	A2	19880916	JP 1987-57646	19870312
JP 06085677	B4	19941102		
US 4879133	A	19891107	US 1988-165526	19880308
AU 8812866	A1	19880915	AU 1988-12866	19880310
AU 610860	B2	19910530		
CA 1328192	A1	19940405	CA 1988-561153	19880310
PRIORITY APPLN. INFO.:			JP 1987-57645	A 19870312
			JP 1987-57646	A 19870312

AB A modified **gluten** is prepared by kneading a mixture of wheat **flour**, L-ascorbic acid, cystine, and water; mech. damaging or mixing under high shear forces the resulting dough-like mixture until the mixture contains 75-85 weight% 0.05N aqueous HOAc-soluble proteins; and **separating** the water-insol. **gluten** from the mixture A bread improver composition contains the modified gluten, cystine, and \geq **emulsifier**. Thus, a modified gluten containing 79.5 wt% HOAc-soluble proteins was prepared as described and 30 g added to 1979 g farinaceous bread **flour** mix. Buns prepared with this dough had greater volume, better outer profile, and better crumb and crumb palatability than buns prepared with gluten which had not been prepared in the presence of L-ascorbate, cyctine, and/or **emulsifier**.

L12 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 08 Jun 1984

ACCESSION NUMBER: 1984:190514 CAPLUS

DOCUMENT NUMBER: 100:190514

TITLE: Toast bread from defatted wheat **flour**

AUTHOR(S): Pomeranz, Y.; El-Baya, A. W.; Seibel, W.; Stephan, H.

CORPORATE SOURCE: Grain Market. Res. Lab., U. S. Dep. Agric., Manhattan, KS, 66502, USA

SOURCE: Cereal Chemistry (1984), 61(2), 136-40

CODEN: CECHAF; ISSN: 0009-0352

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Toast bread was baked from nondefatted and from petroleum-ether defatted **flour** of medium protein content and strength. The formulation included 5% peanut oil or fat, 0.2-0.4% diacetyltartaric acid esters or lecithin, 0.1-0.2% polar wheat **flour** or wheat gluten lipids, 0.55% nonpolar wheat **flour** or wheat gluten lipids, and combinations of 5% fat or oil and **emulsifiers** or wheat **flour** lipids. Whereas peanut oil and fat were equally effective in increasing loaf volume, bread baked with fat had superior crumb characteristics. Diacetyltartaric acid esters were more effective than lecithin in increasing loaf volume and in improving crumb characteristics. Polar wheat **flour** lipids had an intermediate effect. Oil, in combination with **emulsifiers** or wheat **flour** polar lipids, improved loaf volume and crumb characteristics. Surfactants, alone or in combination with 5% oil or fat, had a more pronounced effect when added to defatted rather than to nondefatted **flour**. Increasing the amts. of surfactants within the limits used in this study increased loaf volume and usually improved bread crumb characteristics. When added to defatted **flour**, wheat **flour** polar lipids were more effective than nonpolar lipids, which were more detrimental than corresponding

lipids **extracted** from vital com. **gluten**. The difference is related to the composition of the extracted and fractional lipids. Baking scores and softness retention were usually pos. related to loaf volume

L12 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1980:20797 CAPLUS

DOCUMENT NUMBER: 92:20797

TITLE: Chlorine treatment of cake **flours**. III. Fractionation and reconstitution techniques for molecular chlorine-treated and untreated **flours**

AUTHOR(S): Johnson, A. C.; Hoseney, R. C.

CORPORATE SOURCE: Dep. Grain Sci. Ind., Kansas State Univ., Manhattan, KS, 66506, USA

SOURCE: Cereal Chemistry (1979), 56(5), 443-5

CODEN: CECHAF; ISSN: 0009-0352

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Fractionation and reconstitution studies of Cl-treated and untreated cake **flours** indicate that the starch fraction is responsible for the improved baking performance of Cl-treated **flours**. Although the fractionated (hexane-defatted, slurried, and water-soluble, **gluten**, and starch fractions **separated**) and reconstituted **flours** gave cakes with volume essentially equal to those obtained from the control (unfractionated) **flours**, the grain of cakes from reconstituted **flours** was much poorer than the controls. In this study, cakes from reconstituted **flours** with volume and grain essentially equal to the unfractionated **flour** were obtained by extracting **flours** with hexane before wet-fractionation and using a single-stage mixing procedure with a highly **emulsified** shortening system.

L12 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 22 Apr 2001

ACCESSION NUMBER: 1959:52657 CAPLUS

DOCUMENT NUMBER: 53:52657

ORIGINAL REFERENCE NO.: 53:9500b-d

TITLE: Influence of the separate aspects of intermediates on the process of "ripening" dough

AUTHOR(S): Shkvarkina, T. I.

SOURCE: Khlebopekar. i Konditer. Prom. (1959), 3(No. 2), 4-7

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB The effect on the phys. properties and the changes in the **gluten** of doughs prepared by the **separate** addition of oil and oil **emulsions**, sugar, and NaCl were determined. To **flour**-water (43%) mixts. were added (by weight of **flour**) oil and oil **emulsions** 3%, sugar 5%, and NaCl 1.5%, and, after standing 4 hrs., the properties of the resulting doughs and the crude and dry gluten contents were investigated. It was found that oil and, especially, oil **emulsions** increased the rate of hydration of gluten, improved the gas-holding ability of the dough, and increased the volume of the bread. The sugar served as a substrate for the microflora of the dough and also improved the flavor, aroma, and food value of the bread. NaCl increased the swelling of gluten, but to a limited degree, and did not cause the formation of an

appreciable amount of hydrated gluten.

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L13 54 S L12
L14 49 DUP REM L13 (5 DUPLICATES REMOVED)

L14 ANSWER 1 OF 49 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation
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ACCESSION NUMBER: 2005:487881 SCISEARCH

THE GENUINE ARTICLE: 923CO

TITLE: Characterisation and functional properties of
Australian rice protein isolates

AUTHOR: Agboola S (Reprint); Ng D; Mills D

CORPORATE SOURCE: Charles Sturt Univ, Sch Wine & Food Sci, Boorooma Rd,
Wagga Wagga, NSW 2678, Australia (Reprint); Charles
Sturt Univ, Sch Wine & Food Sci, Wagga Wagga, NSW
2678, Australia

COUNTRY OF AUTHOR: Australia

SOURCE: JOURNAL OF CEREAL SCIENCE, (MAY 2005) Vol. 41, No. 3,
pp. 283-290.

Publisher: ACADEMIC PRESS LTD ELSEVIER SCIENCE LTD,
24-28 OVAL RD, LONDON NW1 7DX, ENGLAND.

ISSN: 0733-5210.

DOCUMENT TYPE: Article; Journal

LANGUAGE: English

REFERENCE COUNT: 30

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Albumin, globulin, **glutelin** and prolamin fractions were isolated from an Australian rice variety (cv. Langi) and characterised by yield, protein content and molecular weight profile using both capillary electrophoresis (SDS-CE) and sodium dodecyl sulphate polyacrylamide gel electrophoresis (SDS-PAGE). The influence of pre-**extraction** enzymatic hydrolysis of starch and heating to 70 &DEG; C was also investigated, as was the **extraction** of the **glutelin** fraction without prior removal of the albumin and globulin fractions. Pre-**extraction** treatment mainly the albumin fraction, increasing dry matter yield but reducing protein content. SDS-CE was able to **separate** the protein fractions over a wider molecular weight range than SDS-PAGE, and the peaks from SDS-CE showed slightly higher molecular weight compared to equivalent bands from SDS-PAGE. The **glutelin** fraction **extracted** without prior removal of albumin and globulin fractions had different characteristics compared to those obtained by conventional **extraction** methods. Pre-**extraction** hydrolysis of starch did not significantly affect the **emulsifying**, foaming and gelling properties of **extracted** protein. Although rice **glutelin** had poor solubility, **emulsifying** and foaming properties in aqueous systems, it had good gelling properties which could be important for food applications. © 2005 Elsevier Ltd. All rights reserved.

L14 ANSWER 2 OF 49 CABA COPYRIGHT 2005 CABI on STN

ACCESSION NUMBER: 2004:175867 CABA
 DOCUMENT NUMBER: 20043161207
 TITLE: Effects of wheat gluten quality and baking process on dough and bread characteristics
 Doctor Scientiarum Thesis 19
 AUTHOR: Aamodt, A.
 CORPORATE SOURCE: Department of Chemistry, Biotechnology and Food Science, Agricultural University of Norway, As, Norway.
 SOURCE: Effects of wheat gluten quality and baking process on dough and bread characteristics, (2004) pp. 42. many ref.
 Publisher: Agricultural University of Norway, Department of Chemistry and Biotechnology. As
 ISBN: 82-575-0604-4
 PUB. COUNTRY: Norway
 DOCUMENT TYPE: Dissertation
 LANGUAGE: English
 SUMMARY LANGUAGE: Norwegian
 ENTRY DATE: Entered STN: 20041108
 Last Updated on STN: 20041108

AB The unique ability of wheat to produce leavened bread is mainly due to the **gluten** proteins. The behaviour of the dough during the baking process and the quality of the baked product depend mainly on the properties of the **gluten** proteins. Variability in **gluten** quality among varieties is caused by genetic differences, but also the environment and fertilising regimes will affect the quality of **gluten**. The aim of this thesis was to study the effect of protein quality, protein content, ingredients, baking process and their interaction on dough behaviour and bread characteristics. The production of hearth bread is challenging because of no sidewall support of the dough during proving. This enables expansion of the dough both horizontally and vertically. The degree of

expansion horizontally and vertically will depend on the protein quality. Protein quality is complex since there is a large number of genes coding different polypeptides which are linked together to build huge and insoluble macromolecules. Both the compositions of polypeptides and environmental factors affect the building of macromolecules. Due to the insolubility and complexity of the proteins, there are many different methods to characterise the proteins that are not necessary coherent. The present thesis has shown that variation seen in dough rheology and hearth bread baking quality between varieties and in-between varieties can be related to the size distribution of the proteins. The size distribution of the proteins was analysed by two-step **extraction** method with sonication to solve the largest polymers followed by SE-FPLC. Both the ratio between monomeric and polymeric proteins and the percentage of the largest glutenin polymers within the polymer group changed with increased protein content. Increased protein content in the various materials resulted in different changes in the protein size distribution. The baking performance of hearth bread responded significantly to the differences associated with the size distribution of proteins. The hearth bread baked without ascorbic acid became small and possessed low form ratio. Quality differences between **flours** with regard to the area of bread slice were not seen when ascorbic acid was not used in the recipe. Ascorbic acid brought out the potential in wheat **flour** known as protein quality. DATEM strengthened the dough and improved the hearth bread characteristics, but the effect of the **emulsifier** was small compared to the effect of **flour** quality. No systematic interaction effect between DATEM and **flour** quality was found. Inclusion of bran or wholemeal caused depression of the volume and the form ratio. Strong protein quality **flours** tolerated addition of bran and wholemeal better than **flours** of weak protein quality. Proving time increased the size of the loaves but decreased form ratio. In practice, proving time should be adjusted to achieve desirable form ratio. Strong protein quality **flours** required and tolerated long proving times better than **flours** of weak protein quality **flours**.

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 ACCESSION NUMBER: 2004-634978 [61] WPIDS
 DOC. NO. NON-CPI: N2004-501963
 DOC. NO. CPI: C2004-228120
 TITLE: Method of increasing crop yield of agricultural commodities e.g. vegetable such as asparagus involves administering a composition a polysaccharide on a seed or seed piece of the crop or to the soil in which the crop is cultivated.
 DERWENT CLASS: A97 C03 P11
 INVENTOR(S): JABAR, A; SMITH, R
 PATENT ASSIGNEE(S): (GLOB-N) GLOBAL PROTEIN PROD INC
 COUNTRY COUNT: 105
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2004071195	A1	20040826	(200461)*	EN	16
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE					
LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE					
DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG					

10/757246

KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ
OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA
UG US UZ VG VN YU ZA ZM ZW
AU 2003303915 A1 20040906 (200480)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2004071195	A1	WO 2003-US32428	20031014
AU 2003303915	A1	AU 2003-303915	20031014

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003303915	A1 Based on	WO 2004071195

PRIORITY APPLN. INFO: US 2002-417860P 20021011

AN 2004-634978 [61] WPIDS

AB WO2004071195 A UPAB: 20040923

NOVELTY - A method (m1) of increasing crop yield involves administering a composition (I) a polysaccharide on a seed or seed piece of the crop or to the soil in which the crop is cultivated.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) a seed composition (II) comprising a crop seed and a coating containing the polysaccharide; and

(2) a method (m2) of increasing crop yield involving administering to the seed or seed pieces, a composition comprising a peptide and/or the polysaccharide in a ratio of 99.9%(peptide):0.1%(polysaccharide) - 0.1%peptide:99.9%(polysaccharide) and an additive. The composition comprises 1 - 50% of the peptide and/or the polysaccharide and 50 - 99% of the additives that promote stability and the functionality of the composition as a dry powder mix.

USE - For increasing crop yield of agricultural commodities e.g. vegetable such as asparagus, beans, beets, broccoli, brussels sprouts, cabbage, carrots, cauliflower, celery, chayote, corn, cucumbers, eggplant, kohlrabi, okra, onions, garlic, parsnips, peas, peppers, potatoes, pumpkins, radishes, rutabagas, squash, turnips, lettuce, kale, collards, spinach, sweet potato, sugar beets, etc.; fruits, such as apples, apricots, avocados, bananas, cherries, coconuts, dates, grapes, guava, lychee, mangoes, melons, nectarines, papaya, peaches, pears, persimmons, pineapples, plantains, plums, pomegranates, prunes, stone fruit, strawberries, tomatoes, blueberries, raspberries, blackberries, and citrus fruits, such as grapefruit, oranges, lemons, limes, clementines and tangerines.

ADVANTAGE - The compositions enhances rapid germination, uniform and early emergence, healthy root mass, higher rates of photosynthesis, plant protection, early maturity and ultimately increase crop yield. The compositions are non-toxic and biodegradable, which has minimal impact on worker safety, the environment and the ecological considerations of the farm. The compositions are easily manufactured and easily applied using conventional and commercially available application equipment.
Dwg.0/0

L14 ANSWER 4 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

Searcher : Shears 571-272-2528

10/757246

ACCESSION NUMBER: 2004-191140 [18] WPIDS
DOC. NO. CPI: C2004-075371
TITLE: Encapsulating a component e.g. omega-3 fatty acid to produce stable solid particles involves reducing the water content of the stabilized **emulsion** to form a film around the oil droplets.
DERWENT CLASS: A96 B07 D13 D21 D25
INVENTOR(S): JARL, T M; KANG, Y; LAKKIS, J; LEUNG, L; ROBIE, S C; VAN LENDERICH, B H
PATENT ASSIGNEE(S): (JARL-I) JARL T M; (KANG-I) KANG Y; (LAKK-I) LAKKIS J; (LEUN-I) LEUNG L; (ROBI-I) ROBIE S C; (VLEN-I) VAN LENDERICH B H; (GENM) GEN MILLS INC
COUNTRY COUNT: 105
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2004009054	A2	20040129	(200418)*	EN	51
RW:	AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW				
W:	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW				
US 2004017017	A1	20040129	(200418)		
AU 2003243612	A1	20040209	(200450)		
EP 1526782	A2	20050504	(200530)	EN	
R:	AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR				

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2004009054	A2	WO 2003-US19028	20030617
US 2004017017	A1	US 2002-205146	20020724
AU 2003243612	A1	AU 2003-243612	20030617
EP 1526782	A2	EP 2003-765446	20030617
		WO 2003-US19028	20030617

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003243612	A1 Based on	WO 2004009054
EP 1526782	A2 Based on	WO 2004009054

PRIORITY APPLN. INFO: US 2002-205146 20020724

AN 2004-191140 [18] WPIDS

AB WO2004009054 A UPAB: 20040316

NOVELTY - Encapsulating an encapsulant involves:

(a) mixing an oil component comprising an encapsulant, with an aqueous component and a film-forming component to form an **emulsion**;

(b) homogenizing the **emulsion** to obtain an oil-in-water **emulsion** comprising oil droplets;

(c) reducing the water content of the **emulsion**; and

(d) applying a protective coating on the film-coated oil

Searcher : Shears 571-272-2528

droplets.

DETAILED DESCRIPTION - Encapsulating an encapsulant involves:

(a) mixing an oil component comprising an encapsulant, with an aqueous component and a film-forming component to form an **emulsion**;

(b) homogenizing the **emulsion** to obtain an oil-in-water **emulsion** comprising oil droplets. The oil droplets comprises the encapsulant and have a diameter of less than 50 microns, and the film-forming component surrounds the oil droplets;

(c) reducing the water content of the **emulsion** so that the film-forming component forms a film around the oil droplets and encapsulates the encapsulant; and

(d) applying a protective coating on the film-coated oil droplets to obtain pellets and to prevent diffusion of the oil component to the surface of the pellets.

INDEPENDENT CLAIMS are also included for:

(1) an encapsulated product comprising pellets containing a protective coating which surrounds several oil droplets. The oil droplets comprise a fish oil containing omega -3 fatty acids, and the oil droplets are encapsulated in a film-forming protein; and

(2) an edible product comprising the encapsulated product.

USE - For encapsulating a component e.g. fish oil comprising omega -fatty acid (claimed) to produce controlled release, discrete, solid particles or pellets.

ADVANTAGE - The method produces shelf stable encapsulated sensitive component, which avoids oil droplet coalescence; and provides increased bioavailability of the component. The encapsulation prevents exposure of the sensitive components to the atmosphere due to outward migration of the oil component to the particulate surface and inward penetration of the atmospheric oxygen to the encapsulant. The encapsulated component achieves substantially uniform shaped and substantially uniform sized particulate having substantially smooth, non-cracked or non-creviced surfaces. The particulates produced at low temperature without substantial heating or without substantial gelatinization of starch avoids thermal destruction of the sensitive components, and avoid substantial expansion. The particulates containing encapsulated fish oils, and food products containing the particulates do not exhibit rancid odors or tests for extended periods of time.

Dwg.0/0

L14 ANSWER 5 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
 ACCESSION NUMBER: 2004-689808 [67] WPIDS
 DOC. NO. CPI: C2004-244435
 TITLE: High fiber biscuit useful as dietary fiber supplement, contains preset amount of wheat flour, fiber source, emulsifiers, food grade additives, flavoring agent and preservatives.
 DERWENT CLASS: D11
 INVENTOR(S): LEELAVATHI, K R; SUDHA, M L; VETRIMANI, R
 PATENT ASSIGNEE(S): (COUN-N) COUNCIL SCI & IND RES INDIA; (LEEL-I) LEELAVATHI K R; (SUDH-I) SUDHA M L; (VETR-I) VETRIMANI R
 COUNTRY COUNT: 103
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG

10/757246

US 2004191393 A1 20040930 (200467)* 8
WO 2004084637 A1 20041007 (200467)# EN
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE
LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE
DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ
OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US
UZ VC VN YU ZA ZM ZW
AU 2003214636 A1 20041018 (200505)#

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2004191393	A1	US 2003-397584	20030326
WO 2004084637	A1	WO 2003-IN69	20030324
AU 2003214636	A1	AU 2003-214636	20030324
		WO 2003-IN69	20030324

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003214636	A1 Based on	WO 2004084637

PRIORITY APPLN. INFO: US 2003-397584 20030326; WO
2003-IN69 20030324; AU
2003-214636 20030324

AN 2004-689808 [67] WPIDS

AB US2004191393 A UPAB: 20050621

NOVELTY - A high fiber biscuit composition contains 30-55 weight% of wheat **flour**, 5-40 weight% of fiber source, 0.01-0.35 weight% of **emulsifiers** and remaining quantity of food grade additives, flavoring agent and preservatives.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for preparation of high fiber biscuits, which involves preparing a blend of refined wheat **flour**, fiber source and skimmed milk powder; preparing a paste by mixing 0.1-0.4 weight% of glyceryl mono stearate and 0.1-0.4 weight% of lecithin with water; mixing the paste with 17-25 weight% of fat, 28-35 weight% of sugar, liquid glucose and flavoring agent; creaming the paste for 14-21 minutes; preparing a solution of sodium chloride, ammonium bicarbonate and sodium bicarbonate in water; blending the solution with the cream for 10-15 minutes; blending the **flour** mixture with the cream for 2-5 minutes to obtain biscuit dough; and finally sheeting and molding biscuit dough into desired shape, followed by baking.

USE - As health food for supplementing dietary fibers.

ADVANTAGE - The high fiber biscuit has excellent quality and texture, and supplements required dietary fibers.

Dwg.0/0

L14 ANSWER 6 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 2004-716648 [70] WPIDS

DOC. NO. CPI: C2004-252484

TITLE: Edible dough for domestic pets such as cats and dogs, comprises **flour**, soluble fiber containing gum and agent containing glycerol, and is molded around medicaments such as pills, capsules and/or

Searcher : Shears 571-272-2528

tablets.
 DERWENT CLASS: A96 B04 D11
 INVENTOR(S): LEECH, W F; RAZZAK, M H A; SILCOCK, P J
 PATENT ASSIGNEE(S): (BOMA-N) BOMAC LAB LTD
 COUNTRY COUNT: 1
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
NZ 513416	A	20040430	(200470)*		17

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
NZ 513416	A	NZ 2002-513416	20020709

PRIORITY APPLN. INFO: NZ 2002-513416 20020709

AN 2004-716648 [70] WPIDS

AB NZ 513416 A UPAB: 20041101

NOVELTY - An edible dough comprising **flour**(s), soluble fiber(s) containing gum(s) and an agent containing glycerol, is new. The dough is molded around medicaments such as pills, capsules and/or tablets. The dough has extensible characteristics, which allow the dough to form a film with the medicament.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) a product incorporating a packaged block of the dough; and
- (2) an oral delivery method for delivering medicament to the animal, which involves molding the medicament with edible dough and administering the medicament, the film formed by the dough cannot be **separated** by the animal.

USE - For domestic pets (claimed) such as cats and dogs.

ADVANTAGE - The edible dough is malleable and can be readily stretched and deformed to variety of shapes without losing the ability to form homogenous mass around the medicament. The dough has excellent microbial, color and odor stability at room temperature.

Dwg.0/0

L14 ANSWER 7 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 2004-557258 [54] WPIDS

DOC. NO. CPI: C2004-203947

TITLE: Method for producing rice **flour** bread e.g. plain bread, involves adding suitable amount of cell-wall degradation enzyme(s), amylase, **emulsifier** and yeast fermentation promoter to **gluten**-containing rice **flour**, and baking.

DERWENT CLASS: D11

PATENT ASSIGNEE(S): (DOKU-N) DOKURITSU GYOSEI HOJIN NOGYO SEIBUTSU SH;
 (SEIB-N) SEIBUTSUKEI TOKUTEI SANGYO GIJUTSU

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 2004208561	A	20040729	(200454)*		12

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 2004208561	A	JP 2002-380938	20021227

PRIORITY APPLN. INFO: JP 2002-380938 20021227

AN 2004-557258 [54] WPIDS

AB JP2004208561 A UPAB: 20040823

NOVELTY - Preparation of rice **flour** bread involves adding suitable amount of cell-wall degradation enzyme(s), amylase, **emulsifier** and yeast fermentation promoter to **gluten**-containing rice **flour**, and baking.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for rice **flour** bread produced by above method.

USE - For producing rice **flour** breads (claimed), such as plain bread, French bread, sweet bread, Danish pastry, steamed bread and doughnut.

ADVANTAGE - The method enables to produce rice **flour** bread easily with improved quality.
Dwg.0/0

L14 ANSWER 8 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 2004-670727 [66] WPIDS

DOC. NO. CPI: C2004-239541

TITLE: Obtaining of multipurpose basic filling for food composition, e.g. snacks, comprises selecting ingredients, instant mixing of selected ingredients for preparing basic filling, and measuring multifunctionality of basic filling.

DERWENT CLASS: D11 D13

INVENTOR(S): PEREMANS, J A M A; SARNEEL, F J

PATENT ASSIGNEE(S): (CERE-N) CERESTAR HOLDING BV

COUNTRY COUNT: 109

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 1462005	A1	20040929	(200466)*	EN	14
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					
WO 2004084640	A2	20041007	(200466)	EN	
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 1462005	A1	EP 2003-251962	20030328
WO 2004084640	A2	WO 2004-EP3267	20040326

PRIORITY APPLN. INFO: EP 2003-251962 20030328

AN 2004-670727 [66] WPIDS

AB EP 1462005 A UPAB: 20041015

NOVELTY - Multipurpose basic filling is obtained by selecting the ingredients, instant mixing of selected ingredients at room temperature for preparing a basic filling, and measuring multifunctionality of basic filling. The multifunctionality is expressed by measuring baking score relating to leaking of filling during backing, freeze-thaw stability of unbaked and baked filling, consistency, and taste evaluation.

DETAILED DESCRIPTION - Obtaining of multipurpose basic filling comprises selecting the ingredients, instant mixing of selected ingredients at room temperature for preparing a basic filling, and measuring multifunctionality of basic filling. The multifunctionality is expressed by measuring baking score relating to leaking of filling during backing, freeze-thaw stability of unbaked and baked filling, consistency, and taste evaluation. The basic filling has a neutral taste. It is baking stable, and free-thaw stable before and after baking. The unbaked filling has an effective consistency. INDEPENDENT CLAIMS are also included for:

(a) a completed filling comprising basic filling, and sauce or mixtures of sauces; and

(b) a food composition comprising meat, fish, cheese, rice, potato, fruits, and/or vegetables; and basic filling or completed filling.

USE - For obtaining a multipurpose basic filling used in food composition, e.g. snacks, pies, pizzas, and savory filled products (claimed).

ADVANTAGE - The invention provides multipurpose basic filling that allows a one-step process without the need of additional coating of the casing. It provides a completed filling that is freeze-thaw stable, short, and with a smooth texture. It allows a convenient instant and cold preparation.

Dwg.0/0

L14 ANSWER 9 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 2004-393206 [37] WPIDS

DOC. NO. CPI: C2004-147167

TITLE: Granule useful for the preparation of dough comprises a hydrophilic core with a specific diameter and a lipophilic continuous layer encapsulating the core.

DERWENT CLASS: A97 D11 D16

INVENTOR(S): DUSTERHOFT, E; HARGREAVES, N G; HUSCROFT, S C; MINOR, M; NIKOLAI, K; SCHARF, U; DUESTERHOFT, E

PATENT ASSIGNEE(S): (CSMN-N) CSM NEDERLAND BV

COUNTRY COUNT: 107

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 1413202	A1	20040428	(200437)*	EN	13
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					
WO 2004037004	A2	20040506	(200437)	EN	
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE					

10/757246

KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO
NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ
UA UG US UZ VC VN YU ZA ZM ZW
AU 2003272150 A1 20040513 (200468)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 1413202	A1	EP 2002-79422	20021022
WO 2004037004	A2	WO 2003-NL711	20031022
AU 2003272150	A1	AU 2003-272150	20031022

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003272150	A1 Based on	WO 2004037004

PRIORITY APPLN. INFO: EP 2002-79422 20021022

AN 2004-393206 [37] WPIDS

AB EP 1413202 A UPAB: 20040611

NOVELTY - A granule comprises a hydrophilic core (a1) and a lipophilic continuous layer (a2) encapsulating (a1). The core contains at least one functional bakery ingredients selected from enzyme, oxidoreductant, acidulant, hydrocolloid, starch, yeast, sugar, water and flavor. (a2) contains at least one triglyceride fat with a slip melting point of at least 30 deg. C and release agent.

DETAILED DESCRIPTION - A granule comprises a hydrophilic core with a diameter of at least 35 micro m and a lipophilic substantially continuous layer encapsulating the core. The core contains at least one functional bakery ingredients selected from enzyme, oxidoreductant, acidulant, hydrocolloid, starch, yeast, sugar, water and flavor. The layer contains at least one triglyceride fat (at least 50 weight%) with a slip melting point of at least 30 deg. C and release agent (at least 1 weight%). The release agent is monoglyceride, diglyceride, datem, lactem, citrem, stearyl-lactylate, polyglycerol ester, lecithin, sucrose ester, fatty acids and/or soaps.

INDEPENDENT CLAIMS are also included for the following:

- (1) a composition comprising the granule (where the average diameter of the granule is 30 - 500 (preferably 60 - 400) micro m;
 - (2) a dough comprising the composition (0.01 - 5 weight%); and
 - (3) preparation of the composition involving:
 - (i) preparing several of particles with a diameter of at least 5 micro m (where the particles comprises the functional bakery ingredients);
 - (ii) preparing a blend containing triglyceride fat (50 weight%) with a slip melting point of at least 30 deg. C and release agent (at least 1 weight%);
 - (iii) spraying the obtained blend in melted form onto several particles obtained from the step i) to achieve encapsulation of the particles with a continuous layer of the blend; and
 - (iv) cooling the resulting encapsulated particles to obtain several encapsulated particles that exhibit free flowing behavior.
- USE - In the preparation of a dough e.g. bread dough (claimed); in baking industry.

ADVANTAGE - The granules improve handling and machinability of dough and improves texture, volume, flavor and freshness (anti-staling) of the final product. The granules are stable under

ambient conditions. The release agent enables the swift release of the functional bakery ingredient(s) after the granules have been incorporated in the dough. The functional ingredients exert desired effect during or after proving thus avoids or reduces the problems with e.g. stickiness, water holding capacity and dough strength.
Dwg.0/0

L14 ANSWER 10 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
 ACCESSION NUMBER: 2003-381678 [36] WPIDS
 DOC. NO. CPI: C2003-101429
 TITLE: Edible dough for oral delivery method, contains **flour**, soluble fiber, water, and additional agents, and has extensibility characteristics that allow it to form homogeneous mass with medicament.
 DERWENT CLASS: B07
 INVENTOR(S): LEECH, W F; RAZZAK, M; SILCOCK, P J
 PATENT ASSIGNEE(S): (BOMA-N) BOMAC LAB LTD; (LEEC-I) LEECH W F; (RAZZ-I) RAZZAK M; (SILC-I) SILCOCK P J
 COUNTRY COUNT: 102
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003030863	A1	20030417	(200336)*	EN	21
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
EP 1450761	A1	20040901	(200457)	EN	
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					
AU 2002337517	A1	20030422	(200460)		
AU 2002337517	A2	20030422	(200501)		
JP 2005508347	W	20050331	(200523)		35
US 2005079264	A1	20050414	(200526)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003030863	A1	WO 2002-NZ207	20021009
EP 1450761	A1	EP 2002-773051	20021009
		WO 2002-NZ207	20021009
AU 2002337517	A1	AU 2002-337517	20021009
AU 2002337517	A2	AU 2002-337517	20021009
JP 2005508347	W	WO 2002-NZ207	20021009
		JP 2003-533896	20021009
US 2005079264	A1	WO 2002-NZ207	20021009
		US 2004-491727	20041018

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1450761	A1 Based on	WO 2003030863
AU 2002337517	A1 Based on	WO 2003030863

10/757246

AU 2002337517 A2 Based on WO 2003030863
JP 2005508347 W Based on WO 2003030863

PRIORITY APPLN. INFO: NZ 2002-521859 20020709; NZ
2001-513416 20011009

AN 2003-381678 [36] WPIDS

AB WO2003030863 A UPAB: 20030609

NOVELTY - An edible dough for an oral delivery method, comprises **flour**, soluble fiber, water, and additional agents. It can be molded around a medicament from pill(s), capsule(s), tablet(s), and/or liquid. It has extensibility characteristics that allow it to form a homogeneous mass with the medicament.

USE - For an oral delivery method (claimed) used in administering a medicament (such as pills, tablets or capsules) to an animal, e.g. domestic pets.

ADVANTAGE - The inventive edible dough allows for the easy administration of medications to animals. It has extensibility characteristics allowing it to form a homogeneous mass with the medication, thus making it difficult for the animal to **separate** out the pill. It is also stable at room temperature in microbiology, color, odor and extensibility.

Dwg.0/0

L14 ANSWER 11 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 2002-425312 [45] WPIDS

CROSS REFERENCE: 2004-327119 [30]

DOC. NO. CPI: C2002-120381

TITLE: Baked and freezer stable filled waffle for heating in toaster has outer casing material containing higher water content and higher water activity level than the filling material.

DERWENT CLASS: A97 D11 E19

INVENTOR(S): BAUMAN, M; GAMBINO, C; KING, M

PATENT ASSIGNEE(S): (BAUM-I) BAUMAN M; (GAMB-I) GAMBINO C; (KING-I) KING
M

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2002039612	A1	20020404	(200245)*		10

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2002039612	A1 Provisional	US 2000-227059P	20000821
		US 2001-934394	20010821

PRIORITY APPLN. INFO: US 2000-227059P 20000821; US
2001-934394 20010821

AN 2002-425312 [45] WPIDS

CR 2004-327119 [30]

AB US2002039612 A UPAB: 20040511

NOVELTY - A baked and freezer stable filled waffle has an outer casing material formed from a batter comprising water, **flour**, bicarbonate, and leavening agent. The outer casing material surrounding the filling material contains up to 40 weight% water, and the

Searcher : Shears 571-272-2528

filling material contains lesser. The outer casing and the filling materials have a water activity level of 0.9-0.99 and at most 0.95, respectively.

DETAILED DESCRIPTION - A baked and freezer stable filled waffle (10) comprises an outer casing material (12) formed from a batter comprising a homogeneous mixture of (in weight%) water (30-65), **flour** (25-70), bicarbonate (0.05-2.5), and leavening agent (0.04-2). The outer casing material surrounding the filling material (14) has a water content of up to 40 weight% and the filling material contains less water than that of the outer casing material; and the water activity levels of the outer casing and the filling materials are 0.9-0.99 and at most 0.95, respectively.

USE - As filled waffled to be heated in an upright toaster for consumption.

ADVANTAGE - The filled waffle can be stored frozen and reheated rapidly in a conventional toaster without burning or charring of the outer casing material and complete heating of the inner filling material.

DESCRIPTION OF DRAWING(S) - The figure is a partial cross section of the inventive round frozen filled waffle showing the filling material.

Baked and freezer stable filled waffle 10

Outer casing material 12

Filling material 14

Dwg.1/2

L14 ANSWER 12 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
 ACCESSION NUMBER: 2003-742400 [70] WPIDS
 DOC. NO. CPI: C2003-203772
 TITLE: Bakery stabilizer comprising **emulsifying**, functional additives and **extracts** of barley and rye malt.
 DERWENT CLASS: D11 D16
 INVENTOR(S): KOLOSOVA, G M; LEVACHEV, A S; MERKULOV, P B; MERKULOVA, E M
 PATENT ASSIGNEE(S): (KOLO-I) KOLOSOVA G M; (LEVA-I) LEVACHEV A S; (MERK-I) MERKULOV P B; (MERK-I) MERKULOVA E M
 COUNTRY COUNT: 1
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
RU 2191511	C1	20021027	(200370)*		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
RU 2191511	C1	RU 2001-135139	20011226

PRIORITY APPLN. INFO: RU 2001-135139 20011226

AN 2003-742400 [70] WPIDS

AB RU 2191511 C UPAB: 20031030

NOVELTY - Stabilizer comprising **emulsifying**, functional additives and **extracts** of barley and rye malt, is new.

USE - The stabilizer is used as an additive in the food industry, e.g. in bread (claimed).

ADVANTAGE - The stabilizer improves qualitative values of bread,

provides the opportunity to use **flours** with insufficiently high values of **gluten**, **flour** obtained out of frost-damaged grain and partially affected by eurygaster or cereal bugs.
Dwg.0/0

L14 ANSWER 13 OF 49 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation
on STN DUPLICATE 1

ACCESSION NUMBER: 2002:731199 SCISEARCH

THE GENUINE ARTICLE: 586RX

TITLE: Effects of polyglycerol mono-fatty acid esters on gluten and starch in wheat **flour** dough

AUTHOR: Miyamoto Y (Reprint); Sakamoto M; Maeda T; Morita N

CORPORATE SOURCE: Sakamoto Yakuhin Co Ltd, Ako Res Inst, 1325-93 Kizu, Ako, Hyogo 6780165, Japan (Reprint); Sakamoto Yakuhin Co Ltd, Ako Res Inst, Ako, Hyogo 6780165, Japan; Univ Osaka Prefecture, Grad Sch Agr & Biol Sci, Div Appl Biochem, Sakai, Osaka 5998531, Japan

COUNTRY OF AUTHOR: Japan

SOURCE: JOURNAL OF THE JAPANESE SOCIETY FOR FOOD SCIENCE AND TECHNOLOGY-NIPPON SHOKUHIN KAGAKU KOGAKU KAISHI, (JUL 2002) Vol. 49, No. 8, pp. 534-539.
Publisher: JAPAN SOC FOOD SCI TECHNOL, 2-1-12 KANNONDAI TSUKUBA-SHI, IBARAKI-KEN, 305-8642, JAPAN.
ISSN: 1341-027X.

DOCUMENT TYPE: Article; Journal

LANGUAGE: Japanese

REFERENCE COUNT: 14

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB The effects on **gluten** and starch in wheat **flour** dough were examined of 21 species of polyglycerol mono-fatty acid esters (PGMFES), each with tetraglycerol, hexaglycerol, or decaglycerol as the polyglycerol and with octanoic, decanoic, lauric, myristic, palmitic, stearic, or oleic acid as the fatty acid. Larger amounts of free lipids were **extracted** from the doughs containing one of these esters than from the control dough without an additive. These lipid liberation might be attributable to a certain specific interaction between **gluten** and the PGMFE. Furthermore, the shorter the fatty-acid chain in the PGMFE is, the greater was the amount of free lipids **extracted**, and the greater was the reactivity of the PGMFE to **gluten**. The starch-complexing indices of the PGMFEs were the highest with myristic acid, and the value changed inversely with the carbon number of the fatty acid residue. These results were consistent to some extent with those of scanning electron microscopy and differential scanning calorimetry. The effects of PGMFEs on **gluten** and starch in dough depended on the length of fatty acid residue in the complex.

L14 ANSWER 14 OF 49 FSTA COPYRIGHT 2005 IFIS on STN

ACCESSION NUMBER: 2002:M1270 FSTA

TITLE: Foaming and **emulsifying** properties of fractions of gluten peptides obtained by limited enzymatic hydrolysis and ultrafiltration.

AUTHOR: Popineau, Y.; Huchet, B.; Larre, C.; Berot, S.

CORPORATE SOURCE: INRA, Unite de Biochimie et Tech. des Proteines, Rue de la Geraudiere, BP 71627, 44316 Nantes Cedex 3, France. E-mail popineau(a)nantes.inra.fr
JOURNAL OF CEREAL SCIENCE, (2002) 35 (3) 327-335, 27 ref.

ISSN: 0733-5210

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Composition and foaming and **emulsification** properties of peptide fractions **separated** from **gluten** hydrolysates by ultrafiltration (using membranes with mol. weight cut-off 50 or 150 kg/mol) were evaluated. Hydrolysates were prepared from **flour** of wheat cv. Soissons, under various conditions (in the presence of 0, 5 or 10 mg cysteine, to partially reduce disulphide bridges and help dispersion and recovery), using the proteinase 2500S. Ultrafiltration retentates were enriched in hydrophobic peptides and permeates in hydrophilic peptides. Hydrolysates, retentates and permeates were assessed at pH 4 and 6.5, and salt concentration of 0.2 and 2%. Cysteine addition and mol. weight cut-off of ultrafiltration membranes did not affect functionality of hydrolysates and their fractions. Hydrolysate foams were unstable; permeate foams, only produced at pH 6.5 were also highly unstable, and permeates showed no **emulsification** properties. Retentate foams were, however, of good stability, and retentates also showed good **emulsification** properties (better than those of hydrolysates). Foaming and **emulsification** properties of retentates were only slightly affected by pH and ionic strength.

L14 ANSWER 15 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 2001-357984 [38] WPIDS

DOC. NO. CPI: C2001-111108

TITLE: Edible oil and fat substitute for bakery products, includes fine particles of specified average particle size and surface hydrophobic degree.

DERWENT CLASS: D11 D13

INVENTOR(S): MATOBA, H; NONAKA, M; SASAKI, C; WATANABE, A

PATENT ASSIGNEE(S): (AJIN) AJINOMOTO CO INC; (AJIN) AJINOMOTO OIL MILLS CO INC; (AJIN) AJINOMOTO KK; (MATO-I) MATOBA H; (NONA-I) NONAKA M; (SASA-I) SASAKI C; (WATA-I) WATANABE A

COUNTRY COUNT: 29

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 1104656	A2	20010606	(200138)*	EN	12
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
CA 2327171	A1	20010601	(200138)	EN	
US 2001003594	A1	20010614	(200138)		
JP 2001218550	A	20010814	(200154)		10
US 6447824	B2	20020910	(200263)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 1104656	A2	EP 2000-310622	20001130
CA 2327171	A1	CA 2000-2327171	20001130
US 2001003594	A1	US 2000-725517	20001130
JP 2001218550	A	JP 2000-328520	20001027
US 6447824	B2	US 2000-725517	20001130

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PRIORITY APPLN. INFO: JP 2000-328520 20001027; JP
1999-341571 19991201

AN 2001-357984 [38] WPIDS

AB EP 1104656 A UPAB: 20040405

NOVELTY - An edible oil and fat substitute comprises fine particles having an average particle size of at most 250 μ m, and a surface hydrophobic degree of at most 35 g (as the value of oil absorption measured by the oil absorption assay method of JIS K6223).

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for methods of :

(A) preparing a food by mixing edible oil and fat substitute with food components; and

(B) extending **gluten** by kneading **flour** and water in the presence of the edible oil and fat substitute.

USE - For use in food, bakery products, and for preparing bread or **flour** dough (claimed).

ADVANTAGE - The edible oil and fat substitute produces low oil content and low calorie foods. It has no peculiar flavor, does not **extract** fat-soluble vitamins from the body, and has a shortness effect in bakery products.

Dwg.0/1

L14 ANSWER 16 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
DUPLICATE 2

ACCESSION NUMBER: 2000-273293 [24] WPIDS

DOC. NO. CPI: C2000-083500

TITLE: In a process for making bread, a gliadine rich fraction is added to dough without or in place of incorporation of yeast food and **emulsifiers**

DERWENT CLASS: D11

INVENTOR(S): KATAHIRA, R; YAJIMA, M

PATENT ASSIGNEE(S): (ASAM-N) ASAMA CHEM CO LTD; (ASAM-N) ASAMA KASEI KK

COUNTRY COUNT: 26

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 992193	A1	20000412	(200024)*	EN	13
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
JP 2000106816	A	20000418	(200030)		5
EP 992193	B1	20040623	(200442)	EN	
R: DE GB					
DE 69918239	E	20040729	(200452)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 992193	A1	EP 1999-303207	19990426
JP 2000106816	A	JP 1998-299131	19981006
EP 992193	B1	EP 1999-303207	19990426
DE 69918239	E	DE 1999-618239	19990426
		EP 1999-303207	19990426

FILING DETAILS:

PATENT NO	KIND	PATENT NO
	Searcher	: Shears 571-272-2528

 DE 69918239 E Based on EP 992193

PRIORITY APPLN. INFO: JP 1998-299131 19981006

AN 2000-273293 [24] WPIDS

AB EP 992193 A UPAB: 20000522

NOVELTY - In a process for making bread, a gliadine rich fraction is added to dough without or in place of incorporation of yeast food and **emulsifiers**.

DETAILED DESCRIPTION - A process for making bread comprises mixing **flour**, yeast, optional additives, water and a gliadine rich fraction, without incorporation of yeast food and **emulsifier**, to prepare dough and baking it.

USE - The gliadine rich fraction is used for making bread in place of incorporation of yeast food and **emulsifier** in dough (claimed).

ADVANTAGE - Bread suitable for mass production can be made without additives such as yeast food and **emulsifiers**. The bread retains the original taste of the wheat.
 Dwg.0/0

L14 ANSWER 17 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 2001-010111 [02] WPIDS

DOC. NO. CPI: C2001-002692

TITLE: Powders for formulation into topical compositions comprising gliadine and vegetable fraction rich in polar lipids e.g. glycolipids, ceramides and phospholipids.

DERWENT CLASS: B07 D21

INVENTOR(S): LAIMAY, F

PATENT ASSIGNEE(S): (LAVI-N) LAB LAVIPHARM SA

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
FR 2792197	A1	20001020	(200102)*		14

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
FR 2792197	A1	FR 1999-4913	19990419

PRIORITY APPLN. INFO: FR 1999-4913 19990419

AN 2001-010111 [02] WPIDS

AB FR 2792197 A UPAB: 20010110

NOVELTY - Powders comprising a protein fraction containing gliadine and a vegetable component (I) rich in polar lipids.

DETAILED DESCRIPTION - (I) preferably contains 50-80 % lipids, especially 50-65 % glycolipids including glycosylceramides, 5-12 % , especially 8-10 % ceramides including glycosylceramides, and 20-40 % , especially 30-35 % phospholipids. The protein fraction preferably comprises over 70 % gliadine. The powders are preferably in the form of a dispersion of the lipid in the proteic fraction.

USE - The product has a cosmetic, dermatological and pharmaceutical use, having a nourishing, hydrating, anti-elastase, and anti-radical action. It may also be used as a carrier, stabilizer, co-

emulsifier and film-forming agent for other active materials.

ADVANTAGE - Since the powder is entirely vegetable in origin, there is no risk of applying animal contaminants.

Dwg.0/0

L14 ANSWER 18 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
 ACCESSION NUMBER: 2000-444485 [39] WPIDS
 CROSS REFERENCE: 2000-368218 [32]
 DOC. NO. CPI: C2000-135412
 TITLE: Compositions rich in lipids obtained from vegetable sources by solvent **extraction**, suitable for use in cosmetics, pharmaceuticals, and foodstuffs.
 DERWENT CLASS: B05 D13 D21 D22 E19 F06
 INVENTOR(S): FOTINOS, S
 PATENT ASSIGNEE(S): (LAVI-N) LAB LAVIPHARM SA
 COUNTRY COUNT: 1
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
FR 2785806	A1	20000519	(200039)*		40

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
FR 2785806	A1	FR 1999-4915	19990419

PRIORITY APPLN. INFO: FR 1998-14496 19981118

AN 2000-444485 [39] WPIDS

CR 2000-368218 [32]

AB FR 2785806 A UPAB: 20000818

NOVELTY - Process for the preparation of compositions rich in lipids or proteins from vegetable sources, the compositions so prepared and their use in cosmetics, pharmaceuticals, and foodstuffs.

DETAILED DESCRIPTION - Compositions rich in lipids or proteins are prepared by the following method:

(a) a cereal **flour** or product from cereal transformation such as **gluten** is added to a polar solvent or mixture of polar solvents and stirred vigorously at 20 - 60 deg. C, in a ratio of 1: 1 - 10, and preferably 1:1 - 5, and the mixture **separated** to give a filtrate rich in polar and apolar lipids;

(b) the filtrate is concentrated to a homogeneous orange-brown oil which is dehydrated, and the oil from this is the total lipidic fraction;

(c) in a **separate** stage, the filter cake from the original **separation**, comprising delipidated cereals, is recovered.

INDEPENDENT CLAIMS are included for:

(1) Compositions prepared by the above process; and
 (2) a process for making a gel rich in proteins in which a composition as described (15%) is **emulsified** with water, sodium hydroxide and glycerin at 50 - 60 deg. C.

USE - The lipids may be used in pharmaceutical and cosmetic compositions and also in human and animal foodstuffs. They have a hydrating and lubricant action and they are also suitable for use as vectorizing agents for other active materials. The polar lipidic **extracts** may be used to encapsulate or complex with cosmetic

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and pharmaceutical hydrophiles and lipophiles such as corticoids especially betamethasone. They also have film-forming properties and may be used to make patches. Gels formed using the lipid compositions may be used to impregnate textiles.

ADVANTAGE - The products are free from animal products, give consistent results, and they are easy and cheap to prepare.

Dwg.0/3

L14 ANSWER 19 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
 ACCESSION NUMBER: 1999-580337 [49] WPIDS
 CROSS REFERENCE: 2000-386951 [33]
 DOC. NO. CPI: C1999-168813
 TITLE: Edible matrix with chewable texture for foods and beverages.
 DERWENT CLASS: B04 D13
 INVENTOR(S): VAN LENGERICHE, B H
 PATENT ASSIGNEE(S): (GENM) GEN MILLS INC
 COUNTRY COUNT: 85
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9948372	A1	19990930	(199949)*	EN	47
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW					
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW					
AU 9930649	A	19991018	(200009)		
NO 2000004784	A	20000925	(200065)		
EP 1065936	A1	20010110	(200103)	EN	
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC NL PT RO SE SI					
JP 2002507399	W	20020312	(200220)		39
AU 747549	B	20020516	(200244)		
US 6723358	B1	20040420	(200427)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9948372	A1	WO 1999-US4267	19990323
AU 9930649	A	AU 1999-30649	19990323
NO 2000004784	A	WO 1999-US4267	19990323
		NO 2000-4784	20000925
EP 1065936	A1	EP 1999-912231	19990323
		WO 1999-US4267	19990323
JP 2002507399	W	WO 1999-US4267	19990323
		JP 2000-537438	19990323
AU 747549	B	AU 1999-30649	19990323
US 6723358	B1	US 1998-79060P	19980323
	Provisional	US 1998-103700P	19981009
	Provisional	US 1998-109696P	19981124
	CIP of	US 1999-233443	19990120
		WO 1999-US4267	19990323
		US 2001-673983	20010201

FILING DETAILS:

Searcher : Shears 571-272-2528

PATENT NO	KIND	PATENT NO
AU 9930649	A Based on	WO 9948372
EP 1065936	A1 Based on	WO 9948372
JP 2002507399	W Based on	WO 9948372
AU 747549	B Previous Publ.	AU 9930649
	Based on	WO 9948372
US 6723358	B1 Based on	WO 9948372

PRIORITY APPLN. INFO: US 1999-233443 19990120; US
 1998-79060P 19980323; US
 1998-103700P 19981009; US
 1998-109696P 19981124; US
 2001-673983 20010201

AN 1999-580337 [49] WPIDS

CR 2000-386951 [33]

AB WO 9948372 A UPAB: 20040426

NOVELTY - Chewable texture edible matrix composition contains at least one encapsulated component and comprises

at least one plasticizer and a free flowing particulate mixture (I) comprising at least one fat, at least one starch and at least one sugar, mixed and heated without gelatinising the starch.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for the manufacture of edible products containing an encapsulated component which comprises:

(1) mixing (I) with a plasticizer to obtain a crumbly mass or dough;

(2) admixing at least one encapsulant into the crumbly mass or dough, compressing and shaping at temperatures to prevent thermal degradation of the encapsulant and at pressures to allow formation of coherent pieces and

(3) **separating** into individual pieces.

USE - Used for bread, wafers, cookies, pretzels, pizza, rolls, ready to eat breakfast cereals, hot cereals, pasta products, snacks, soups, salads, cakes, cookies, crackers, puddings, dairy products such as ice creams, cheese and yogurts, sweet goods such as hard candy, soft candy and chocolate, puddings, custards, beverages, animal feed, pet foods, aqua culture foods and special purpose foods such as baby food, nutritional bars, hospital, medical and sports food, fortified foods and food preblends or mixes for home or food service use.

ADVANTAGE - The product is chewable with pleasant taste and texture.

Dwg.0/0

L14 ANSWER 20 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 1999-572399 [49] WPIDS

DOC. NO. CPI: C1999-167208

TITLE: Processing **gluten** after **extraction** from **flour**.

DERWENT CLASS: D11

INVENTOR(S): BASON, M; PAKES, N; TOMLINSON, D

PATENT ASSIGNEE(S): (NEWP-N) NEWPORT SCI PTY LTD

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
AU 9914732	A	19990902	(199949)*		7

Searcher : Shears 571-272-2528

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
AU 9914732	A	AU 1999-14732	19990203

PRIORITY APPLN. INFO: AU 1998-1832 19980217

AN 1999-572399 [49] WPIDS

AB AU 9914732 A UPAB: 19991124

NOVELTY - Processing **gluten** comprises solubilizing the **gluten** in hot aqueous alcohol solution and then drying the solubilized **gluten** to produce a dried product.

USE - The method is used for processing **gluten** after it has been **extracted** from **flour**. The processed **gluten** can be used as a food additive to enhance the baking performance of lower protein **flours** or to maintain loaf volume in the presence of other ingredients such as bran, kibbled grain and fruit. The **gluten** can be used in the manufacture of foods to provide foam stability, fat binding, **emulsification** and other physical and textural properties.

ADVANTAGE - The process is cost effective and reduces loss of **gluten** vitality that can occur with solubilizing methods that use detergents.

Dwg.0/0

L14 ANSWER 21 OF 49 JAPIO (C) 2005 JPO on STN

ACCESSION NUMBER: 1998-179048 JAPIO

TITLE: FOOD QUALITY IMPROVING AGENT

INVENTOR: YAJIMA MIZUO

PATENT ASSIGNEE(S): ASAMA KASEI KK

PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 10179048	A	19980707	Heisei	A23L001-03

APPLICATION INFORMATION

STN FORMAT: JP 1996-354705 19961220

ORIGINAL: JP08354705 Heisei

PRIORITY APPLN. INFO.: JP 1996-354705 19961220

SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1998

AN 1998-179048 JAPIO

AB PROBLEM TO BE SOLVED: To obtain a quality improving agent which reduces the boiling time of noodles to delay the elongation by boiling, gives unique elasticity to fish paste products to improve its appearance and prevents the products from aging by freezing and thawing to improve its quality of taste by containing gliadin, etc., fat or oil and **emulsifier** in a specified ratio.

SOLUTION: A fat or oil of 52 to 400 pts.wt and/or 1 to 200 pts.weight **emulsifier** are contained in 100 pts.weight gliadin or glutenin **separated** from **flour gluten** by **extraction** using an acid alcohol solution to obtain the objective quality improving agent.

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L14 ANSWER 22 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

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DUPLICATE 3
ACCESSION NUMBER: 1996-091592 [10] WPIDS
DOC. NO. CPI: C1996-029088
TITLE: **Separating and recovering gluten and wheat starch - by water washing dough of gluten and soft or medium flour and separating residual gluten and wheat starch.**
DERWENT CLASS: D11 D13
PATENT ASSIGNEE(S): (NISS) NISSHIN FLOUR MILLING CO; (OSAD-N) OSADA SANGYO KK
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 08000201	A	19960109	(199610)*		7
JP 3361189	B2	20030107	(200306)		7

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 08000201	A	JP 1994-158180	19940617
JP 3361189	B2	JP 1994-158180	19940617

FILING DETAILS:

PATENT NO	KIND	PATENT NO
JP 3361189	B2 Previous Publ.	JP 08000201

PRIORITY APPLN. INFO: JP 1994-158180 19940617
AN 1996-091592 [10] WPIDS
AB JP 08000201 A UPAB: 19960308
From dough of **gluten** and soft or medium **flour**, starch-containing **emulsion** is formed by washing with water. Then, residual **gluten** and wheat starch are **separated** and recovered.
ADVANTAGE - **Gluten** and wheat starch may be **sepd** . and recovered in a high yield, and good touch and taste are obtd.
Dwg.0/0

L14 ANSWER 23 OF 49 JAPIO (C) 2005 JPO on STN
ACCESSION NUMBER: 1996-051918 JAPIO
TITLE: PRODUCTION OF BREADS OR WHEAT-BASED CAKES
INVENTOR: YAJIMA MIZUO; KATAHIRA RYOTA
PATENT ASSIGNEE(S): ASAMA KASEI KK
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 08051918	A	19960227	Heisei	A21D013-06

APPLICATION INFORMATION

STN FORMAT: JP 1994-209312 19940811
ORIGINAL: JP06209312 Heisei
PRIORITY APPLN. INFO.: JP 1994-209312 19940811
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined

Searcher : Shears 571-272-2528

Applications, Vol. 1996

AN 1996-051918 JAPIO
 AB PURPOSE: To obtain breads having excellent swelling properties by utilizing dough prepared by adding a component rich in glutenin **separated** from wheat **gluten** by using an acidic aqueous solution of ethanol to wheat **flour**, etc., and forming a great number of impermeable thin films having carbon dioxide gas retention performance.
 CONSTITUTION: A component rich in glutenin **separated** from wheat **gluten** by using ≤ 30 vol.%, preferably 10-20 vol.% of an acidic aqueous solution of ethanol in an amount of ≥ 0.5 pt.weight, preferably 0.5-5.0 pts.weight is added to 100 pts. weight of wheat **flour** and/or starch and mixed with an **emulsifying** agent, preferably a glycerol fatty acid ester, a sucrose fatty acid ester, a sorbitan fatty acid ester, a propylene glycol fatty acid ester, a polyoxyethylene-based **emulsifying** agent, calcium and sodium stearoyl lactate, lecithin and enzyme- treated lecithin to give a composition. Dough comprising this composition is used to give the objective breads.
 COPYRIGHT: (C)1996,JPO

L14 ANSWER 24 OF 49 FSTA COPYRIGHT 2005 IFIS on STN
 ACCESSION NUMBER: 1996(06):M0095 FSTA
 TITLE: Effects of fatty acid species of monoglyceride on breadmaking properties.
 AUTHOR: Inoue, S.; Tugita, K.; Koike, S.; Maruzeni, S.; Kamoi, I.
 CORPORATE SOURCE: Cent. Lab., Yamazaki Baking Co. Ltd., 3-15-6, Chitose, Sumida-ku, Tokyo 130, Japan
 SOURCE: Journal of Japanese Society of Food Science and Technology [Nippon Shokuhin Kogyo Gakkaishi], (1995) 42 (9) 634-642, 20 ref.
 ISSN: 0029-0394
 DOCUMENT TYPE: Journal
 LANGUAGE: Japanese
 SUMMARY LANGUAGE: English

AB Effects of monoglycerides on dough breadmaking properties were examined using glyceryl monostearate (GMS; a saturated monoglyceride), glyceryl monooleate (GMO; a cis-unsaturated monoglyceride) and glyceryl monoelaidate (GME; a trans-unsaturated monoglyceride). Polymorphism of monoglycerides, which may affect their dispersion in aqueous solution, was examined by X-ray diffraction and DSC. GMS and GMO formed stable crystals which retained their stability during storage at 20°C. The GME crystal was unstable but could be easily transformed to a stable state. The unstable crystal of GME had improved dispersion in dough and aqueous solution. Properties of doughs were examined with and without the addition of the 3 monoglycerides (at $< 1\%$ **flour** weight basis) using farinograph and extensigraph analysis. Breadmaking properties were tested using the 70% sponge-dough procedure. Addition of GMO or GME decreased dough consistency during mixing, and increased dough extension strength and loaf volume GMS did not produce these effects. Changes in crumb firmness during storage were depressed by addition of GMS or GME, resulting in a softer bread. **Extraction** of the monoglycerides from the doughs revealed that more GMO and GME than GMS were located in the **gluten** fraction. It is suggested that the double bonds in unsaturated monoglycerides bind more readily to the **gluten** fraction, and consequently influence dough characteristics. [From En summ.]

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L14 ANSWER 25 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 1994-140508 [17] WPIDS
DOC. NO. CPI: C1994-064452
TITLE: Acidic oil in water **emulsion** compsn. for
cream and dressing, etc. - obtd. by adding fraction
prepared by **extracting** grain protein with
acidic aqueous solution and/or aqueous solution containing
alcohol to
emulsion mixture.
DERWENT CLASS: D13
PATENT ASSIGNEE(S): (AMAK-N) AMAKOSU KK; (ASAM-N) ASAMA KASEI KK
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 06086634	A	19940329	(199417)*		5
JP 3203339	B2	20010827	(200152)		4

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 06086634	A	JP 1991-132362	19910325
JP 3203339	B2	JP 1991-132362	19910325

FILING DETAILS:

PATENT NO	KIND	PATENT NO
JP 3203339	B2 Previous Publ.	JP 06086634

PRIORITY APPLN. INFO: JP 1991-132362 19910325

AN 1994-140508 [17] WPIDS

AB JP 06086634 A UPAB: 19940613

Compsn. is obtd. by adding 0.1-20 pts.weight fraction prepared by **extracting** grain protein with acidic aqueous solution of pH upto 6.0 and/or aqueous solution containing 10-70 weight% alcohol to 100 pts.weight **emulsion** mixture comprising 10-99 weight% water of pH upto 6.0 and 0.1-80 weight% oily ingredient.

The grain protein pref. includes **flour gluten**, corn **gluten**, etc.. The oily ingredient includes soybean oil, palm oil, castor oil, olive oil, etc..

USE/ADVANTAGE - The compsn. has good taste and may be stored for a long period. It is used as material for cream, dressing, etc..
Dwg.0/0

L14 ANSWER 26 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
DUPLICATE 4

ACCESSION NUMBER: 1993-239227 [30] WPIDS

DOC. NO. CPI: C1993-106182

TITLE: Preparation of edible fibre without alkaline **extn**
- comprises kneading and washing dough with water,
separating out starch and **gluten**,
centrifuging, and drying.

DERWENT CLASS: B04 D13

PATENT ASSIGNEE(S): (NISS) NISSHIN FLOUR MILLING CO

COUNTRY COUNT: 1

Searcher : Shears 571-272-2528

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 05161461	A	19930629	(199330)*		9
JP 2971144	B2	19991102	(199951)		7

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 05161461	A	JP 1990-418026	19901221
JP 2971144	B2	JP 1990-418026	19901221

FILING DETAILS:

PATENT NO	KIND	PATENT NO
JP 2971144	B2 Previous Publ.	JP 05161461

PRIORITY APPLN. INFO: JP 1990-418026 19901221

AN 1993-239227 [30] WPIDS

AB JP 05161461 A UPAB: 19931118

Preparation of edible fibre comprises (1) kneading **flour** with water for preparing dough or **emulsion**; (2) washing the dough with water, (3) **separating** thus obtd. washed prod. into **gluten** and starch containing **emulsion**, (4) **sepg** . starch from the **emulsion**, (5) adding water to the residue, from which starch is **separated**, to obtg. diluted **emulsion**, (6) centrifuging the diluted **emulsion** for **separating** either coloured solid and white **emulsion** or coloured solid, white **emulsion** and water; and (7) drying white **emulsion** to obtg. edible fibre.

USE/ADVANTAGE - Edible fibre can be prepared from **flour** without **extraction** using an alkaline solution, enzymic treatment, etc. and neutralisation and demineralisation of **extract**, severe control of reactor condition, inactivation of enzyme, etc. Fibre is safe white powdery substance and can be easily ingested as it is or after processing it.

Dwg.0/0

L14 ANSWER 27 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 1993-400374 [50] WPIDS

DOC. NO. CPI: C1993-178056

TITLE: New di hydro methyl alkyl carbazole di one, substances WS63967 - is cyclic GMP phosphodiesterase inhibitor used to treat circulation and lung disorders, e.g. hypertension.

DERWENT CLASS: B02 D16

PATENT ASSIGNEE(S): (FUJI) FUJISAWA PHARM CO LTD

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 05301857	A	19931116	(199350)*		21

APPLICATION DETAILS:

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PATENT NO	KIND	APPLICATION	DATE
JP 05301857	A	JP 1992-351562	19921209

PRIORITY APPLN. INFO: GB 1991-26227 19911210

AN 1993-400374 [50] WPIDS

AB JP 05301857 A UPAB: 19940203

Substances WS63967 of formula (I) are new; R = n-pentyl (WS63967A), 3-methyl-n-pentyl(B), n-hexyl(C), 5-methyl-n-hexyl(D), n-heptyl(E), or 5-methyl-n-heptyl(F).

(I) are produced by a strain of Streptomyces, partic. Streptomyces griseochromogenes number 63967 (FERM BP-3659), or its variants by incubation on a culture medium containing carbon source (e.g. glucose, sucrose, starch, fructose, glycerin), nitrogen source (e.g. yeast **extract**, peptone, **gluten** meal, cotton seed **flour**, soybean **flour**, corn steep liquor, dry yeast, wheat germ, ammonium salt, amino acid, urea) and if required minerals, at a temperature of 20-40 deg.C, pref. 20-30 deg.C for a period of 50-150 hr.

USE/ADVANTAGE - (I) are potent cGMP-phosphodiesterase (II) inhibitors and are effective in treatment of circulatory diseases caused by (II), e.g. hypertension, angina pectoris, congestive heart failure, chronic obstructive lung diseases (asthma, bronchitis). (I) may be administered orally or parenterally as tablets, pellets, capsules, suppositories, solution, **emulsion** or suspension at a daily dose of 0.01-10 mg/kg (i.v.) or 0.1-10 mg/kg (i.m.) or 0.5-50 mg/kg (p.o.).

In an example, a Pt loop of slant culture broth of S griseochromogenes number 63967 was inoculated on a medium (160 mg x 25 flasks) (pH 6.5) containing 1% soluble starch, 1% sucrose, 1% glucose, 1% 'Pharmamedia' (RTM) cotton seed **flour**, 0.5% peptone, 0.5% soybean **flour** and 0.2% CaCO₃ and incubated at 30 deg.C with shaking (220 rpm, 5.1 cm stroke) for 3 days. The whole cultured broth was inoculated on 160 L medium containing 2% sucrose, 2% glucose, 1% chicken mean, 1% meat meal, 1% wheatgerm, 0.5% dry yeast, 0.2% CaCO₃, 0.07% 'Adekanol LG-109' (RTM) (defoamant;) and 0.05% 'Silicone KM-70' (RTM) (defomant) and incubated at 30 deg.C with agitation (200 rpm) and aeration (160 L/m) for 4 days. This was repeated twice. The cultured broth was worked up and purified by chromatography on silica gel columns, HP-20SS and HPLC column to give 1.0 mg WS6396A, 3.0 mg WS6396B, 1.2 WS6396C, 6.6 mg WS6396 D, 5.6 mg WS6396E and 6.0 mg WS6396F.
Dwg.0/0

L14 ANSWER 28 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 1993-060579 [08] WPIDS

DOC. NO. CPI: C1993-027026

TITLE: Low calorie, fibre enriched bread dough production - by adding plant protein and fibre rich **flour**, giving bread with good taste and structure.

DERWENT CLASS: D11

INVENTOR(S): WEHRLI, H; ZIEGLER, G; WEHRLI-STREIFF, H

PATENT ASSIGNEE(S): (STEI-N) STEINER & WEHRLI AG

COUNTRY COUNT: 14

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
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Searcher : Shears 571-272-2528

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EP 528766 A2 19930224 (199308)* GE 14
 R: AT BE CH DE DK ES FR GB IT LI LU NL PT SE
 CH 681192 A5 19930215 (199314)
 EP 528766 A3 19930519 (199403)
 EP 528766 B1 19950705 (199531) GE 4
 R: AT BE CH DE DK ES FR GB IT LI LU NL PT SE
 DE 59202795 G 19950810 (199537)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 528766	A2	EP 1992-810615	19920812
CH 681192	A5	CH 1991-2442	19910820
EP 528766	A3	EP 1992-810615	19920812
EP 528766	B1	EP 1992-810615	19920812
DE 59202795	G	DE 1992-502795	19920812
		EP 1992-810615	19920812

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 59202795	G Based on	EP 528766

PRIORITY APPLN. INFO: CH 1991-2442 19910820

AN 1993-060579 [08] WPIDS

AB EP 528766 A UPAB: 19931119

Production of a low calorie bread dough, rich in dietary fibre, from wheat **flour** comprises adding to the dough (a) plant protein (A) at 2-15 weight% of the dough; (b) a mixture of at least one sort of fibre-rich **flour** (at 15-25 weight% on the wheat **flour**) and (c) additional water (also 15-25 weight% on the wheat **flour**). The mixture is kneaded vigorously for 15 minutes.

(A) is pref. wheat **gluten** and additional opt. additives are defatted soya protein and **emulsifier** (at 0.5-2 weight%).

The fibre-rich **flour** is from one or more of **extracted** sugar beet; grape or grain residues; potato peelings, cereal or soya bran; oat spelt; bean husks and cellulose.

The dough contains (by weight) 40-50% wheat **flour**; 35-45% water; 2-15% **gluten**; 3% yeast; 2% NaCl plus (on the **flour**) 15-25 weight% each fibre-rich material and **extra** water. After kneading and fermenting, the dough is baked at 200-240 deg.C for 30-60 minutes.

USE/ADVANTAGE - Dough produces a well-tasting bread with 30% fewer calories than conventional products. The bread is easy and inexpensive to produce, is not crumbly or tacky and slices well
 Dwg.0/0

ABEQ EP 528766 B UPAB: 19950810

Process for the preparation of a low caloric palatable bread rich on dietary fibres of wheat, characterised in that vegetable protein in 2 to 15 weight percent together with a mixture of one or several types of **flour** rich on nourishment fibres in the range of 15 to 25 weight percent of the **flour** of the wheat is added to the bread dough, that further additional water in the range of 15 to 25 percent of the weight of the **flour** of wheat is added to the bread dough, and that the dough is intensively kneaded for approximate 15 minutes.

Dwg.0/0

L14 ANSWER 29 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
 ACCESSION NUMBER: 1993-027348 [04] WPIDS
 DOC. NO. CPI: C1993-012293
 TITLE: Dry vital wheat **gluten** mfr. from wheat
flour - by mixing vital **gluten** with
 antioxidant added before drying to prevent rancidity.
 DERWENT CLASS: D13
 INVENTOR(S): MATHIEU, J; TAKEHARA, A
 PATENT ASSIGNEE(S): (MATH-I) MATHIEU J; (TAKE-I) TAKEHARA A
 COUNTRY COUNT: 1
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
CA 2041314	A	19921103	(199304)*		16
CA 2041314	C	20010130	(200117)	EN	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
CA 2041314	A	CA 1991-2041314	19910502
CA 2041314	C	CA 1991-2041314	19910502

PRIORITY APPLN. INFO: CA 1991-2041314 19910502

AN 1993-027348 [04] WPIDS

AB CA 2041314 A UPAB: 19931119

Vital wheat **gluten** is mfd. by **extracting**
gluten from wheat (**flour**) in an aqueous process
 comprising mixing vital wet gum **gluten** with an aqueous preparation
 containing an effective amount of antioxidant; and drying.

The antioxidant is tocopherol (I) and the aqueous preparation is an
 aqueous

dispersion of (I). (I) is especially beta-, gamma- and/or delta- (I). It is
 used at 20-2000 (80-240) ppm by weight w.r.t. prod.. The aqueous dispersion
 especially contains 0.005-5 weight% (I). The prod. obtd. by the process is
 new.

ADVANTAGE - The production has no objectionable flavour or aroma,
 normally caused by rancidity.

In an example, 15 kg **emulsion** 14-SP (RTM) was dispersed
 in 400 litres cold water and stirred to give a dispersion of 0.5 weight%
 active tocophenols. This was pumped at 350 ml./min., as was wet gum
 vital wheat **gluten** at 32-37 kg/min., to a conventional ring
 drier (inlet temperature 155 deg.C, outlet temperature 55 deg.C). The dry
 prod.

was bland but had all the functionalities of normal commercially dried
 vital wheat **gluten**.

Dwg.0/3

L14 ANSWER 30 OF 49 JAPIO (C) 2005 JPO on STN
 ACCESSION NUMBER: 1992-117248 JAPIO
 TITLE: PREPARATION OF FROZEN BOILED RICE
 INVENTOR: ARAI CHIAKI; AMANO HARUYUKI
 PATENT ASSIGNEE(S): ASAMA KASEI KK
 AMAKOSU:KK
 PATENT INFORMATION:

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PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 04117248	A	19920417	Heisei	A23L001-10

APPLICATION INFORMATION

STN FORMAT: JP 1990-235633 19900907
 ORIGINAL: JP02235633 Heisei
 PRIORITY APPLN. INFO.: JP 1990-235633 19900907
 SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1992

AN 1992-117248 JAPIO

AB PURPOSE: To prepare frozen boiled rice having excellent texture, taste and productivity by adding a specific amount of a composition comprising prescribed amounts of an edible fat or oil, an **emulsifier**, a sugar alcohol and wheat protein to raw rice when the raw rice is boiled, etc., and subsequently freezing the raw rice separated and boiled thus.

CONSTITUTION: On the preparation of frozen and boiled rice, raw rice is mixed with 0.5-10wt.% of a composition comprising 0.1-20wt.% of an edible fat or oil such as rice oil, 0.01-10wt.%, preferably 0.5-3wt.%, of an edible **emulsifier** such as glycerol fatty acid ester, 10-50wt.%, preferably 20-40wt.%, of a saccharide alcohol such as sorbitol, and 0.01-10wt.%, preferably 0.05-3wt.%, of wheat **flour** such as active **gluten**, when or after the raw rice is boiled, and subsequently the **separated** and boiled rice grains are frozen to provide the objective frozen boiled rice.

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L14 ANSWER 31 OF 49 JAPIO (C) 2005 JPO on STN

ACCESSION NUMBER: 1989-091750 JAPIO
 TITLE: PRODUCTION OF RAW CHINESE NOODLES FOR BOIL-COOKING
 INVENTOR: TAKIZAWA KIMITOSHI; UMIKITA AKIKAZU; HATANO YOICHI
 PATENT ASSIGNEE(S): ASAHI KOGYO KK
 PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 01091750	A	19890411	Heisei	A23L001-16

APPLICATION INFORMATION

STN FORMAT: JP 1987-249310 19871002
 ORIGINAL: JP62249310 Showa
 PRIORITY APPLN. INFO.: JP 1987-249310 19871002
 SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1989

AN 1989-091750 JAPIO

AB PURPOSE: To obtain the title Chinese noodles which do not adhere to each other even without **flour**, contains reduced solid leachate on boiling, and can be cooked by putting in the soup directly by adding vegetable protein, vegetable fiber and dry albumen to wheat **flour** as the main stock.

CONSTITUTION: (A) Wheat **flour** is combined with (B) vegetable protein such as active **gluten**, (C) vegetable fiber such as fiber **extracted** from soybeans, (D) dried albumen, further (E) an alkaline water, salts, **emulsifiers**, alcohol, pigments or the like, then water is added to the mixture and they are kneaded under reduced pressure, aged, preferably at 20±30°C, pressed, and cut into noodles. Then, the noodles are subjected to wrinkling treatment, dried with far infrared rays, and dehumidified with cool

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air to give the subject noodles.
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L14 ANSWER 32 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 1988-258782 [37] WPIDS
DOC. NO. CPI: C1988-115395
TITLE: Modified **gluten** prod. used in bread
improver - obtd. from mixture of wheat **flour**,
L-ascorbic acid, cystine and water.
DERWENT CLASS: D11
INVENTOR(S): ENDO, S; ISHIGAMI, S; KARIBE, S; NOMURA, S
PATENT ASSIGNEE(S): (NISS) NISSHIN FLOUR MILLING CO
COUNTRY COUNT: 7
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 282038	A	19880914	(198837)*	EN	18
R: DE GB					
JP 63222641	A	19880916	(198843)		
JP 63222657	A	19880916	(198843)		
AU 8812866	A	19880915	(198845)		
US 4879133	A	19891107	(199003)		11
EP 282038	B	19910731	(199131)		
R: DE GB					
DE 3863944	G	19910905	(199137)		
CA 1328192	C	19940405	(199419)		
JP 06040800	B2	19940601	(199420)		
JP 06085677	B2	19941102	(199442)		5

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 282038	A	EP 1988-103730	19880309
JP 63222641	A	JP 1987-57645	19870312
JP 63222657	A	JP 1987-57646	19870312
US 4879133	A	US 1988-165526	19880308
CA 1328192	C	CA 1988-561153	19880310
JP 06040800	B2	JP 1987-57645	19870312
JP 06085677	B2	JP 1987-57646	19870312

FILING DETAILS:

PATENT NO	KIND	PATENT NO
JP 06040800	B2 Based on	JP 63222657
JP 06085677	B2 Based on	JP 63222641

PRIORITY APPLN. INFO: JP 1987-57645 19870312; JP
1987-57646 19870312

AN 1988-258782 [37] WPIDS
AB EP 282038 A UPAB: 19930923

A new modified, water-insol. **gluten** prod. is prepared by kneading a mixture of wheat **flour**, L-ascorbic acid, cystine and water, then giving a mechanical damage to the resulting dough-like hydrated **flour** mixture Or particularly mixing the resulting dough-like hydrated **flour** mixture, under a high shearing force until the mixture contains proteins which are soluble in 0.05N acetic

Searcher : Shears 571-272-2528

acid, at an amount or content of 75-85 weight% as calculated on the basis of total content of proteins in the dough-like hydrated **flour** mixture. The water-insoluble, modified **gluten** prod. is **separated** from the dough-like hydrated **flour** mixture, which has received the mechanically damaging step or particularly the high-shear-mixing step.

USE/ADVANTAGE - The modified **gluten** prod. is useful as an additive to farinaceous bread **flour** or dough for making bread or other bakery prods.

0/1

ABEQ EP 282038 B UPAB: 19930923

A new modified **gluten** product which is prepared by kneading a mixture of wheat **flour**, L-ascorbic acid, cystine and water, then giving a mechanical damage to the resulting dough-like hydrated **flour** mixture so kneaded, or particularly, mixing the resulting dough-like hydrated **flour** mixture so kneaded, under a high shearing force, until the dough-like hydrated **flour** mixture becomes to contain the proteins which are soluble in 0.05 N aqueous acetic acid, at an amount or content of 75 to 85% (by weight) as calculated on the basis of the total content of the proteins present in said dough-like hydrated **flour** mixture, and subsequently **separating** the water-insoluble, modified **gluten** product from the dough-like hydrated **flour** mixture which has received the mechanically damaging step or particularly the high-shear-mixing step.

ABEQ US 4879133 A UPAB: 19930923

Water-insoluble modified **gluten** is prepd. by (a) kneading a mixt. of wheat **flour**, L-ascorbic acid, cystine and water; (b) mechanically damaging dough-like hydrated mixt. obtd. to form proteins soluble in 0.05N aq. acetic acid in amt. 75-85% w.r.t. total protein in mixt.; and (c) prepg. from **flour** mixt. obtd.

Pref. amt. of L-ascorbic acid used is 10-1000 ppm, and amt. of cystine is 10-1000 ppm w.r.t. wheat **flour**.

USE - As bread improver compsn. also contg. additional cystine, and **emulsifier(s)**.

L14 ANSWER 33 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
 ACCESSION NUMBER: 1987-247873 [35] WPIDS
 DOC. NO. CPI: C1987-105105
 TITLE: Preparation of **gluten** for food use etc. - by contact with liquid or super-critical carbon di oxide gas to remove lipid(s).
 DERWENT CLASS: D13
 PATENT ASSIGNEE(S): (NISS) NISSHIN FLOUR MILLING CO
 COUNTRY COUNT: 1
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 62171646	A	19870728	(198735)*		3
JP 05045219	B	19930708	(199330)		3

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 62171646	A	JP 1986-13264	19860124
JP 05045219	B	JP 1986-13264	19860124

FILING DETAILS:

PATENT NO	KIND	PATENT NO
JP 05045219	B Based on	JP 62171646

PRIORITY APPLN. INFO: JP 1986-13264 19860124

AN 1987-247873 [35] WPIDS

AB JP 62171646 A UPAB: 19930922

Starting powdery **gluten** is prepared, e.g. by freeze-drying or spray-drying raw **gluten** and crushing it. Liquid or supercritical CO₂ gas of temperature (-20)-150 deg.C and pressure 20-1000 kg/cm², can be used especially 35-60 deg.C and 300-500 kg/cm². The carbon dioxide gas is pref. contacted with powdery **gluten** uniformly for 5-300 mins. and after **separating extracted** substances, the gas is recycled to the **extracting** process.

USE/ADVANTAGE - The lipids in powdery **gluten** can be selectively dissolved out and the **emulsifying** property and foaming property of **gluten** can be remarkably increased without using chemicals, etc. The improved **gluten** can be used for preparing marine pasty foods, various **flour** foods, etc.

0/0

ABEQ JP 93045219 B UPAB: 19931118

Starting powdery **gluten** is prepd. e.g. by freeze-drying or spray-drying raw **gluten** and crushing it. Liq. or supercritical CO₂ gas of temp. (-20)-150 deg.C and pressure 20-100 kg/cm², can be used esp. 35-60 deg.C and 300-500 kg/cm². The carbon dioxide gas is pref. contacted with powdery **gluten** uniformly for 5-300 mins. and after **sepg. extracted** substances, the gas is recycled to the **extracting** process.

USE/ADVANTAGE - The lipids in powdery **gluten** can be selectively dissolved out and the **emulsifying** property and foaming property of **gluten** can be remarkably increased without using chemicals, etc. The improved **gluten** can be used for preparing marine pasty foods, various **flour** foods, etc. (J62171646-A)

L14 ANSWER 34 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 1987-058561 [09] WPIDS

TITLE: Storage stable, prepacked bread crumb preparation - involves adding **gluten, emulsifier** and mono-glyceride in two-stage kneading process.

DERWENT CLASS: D11

PATENT ASSIGNEE(S): (CANT-I) CANTENOT F

COUNTRY COUNT: 11

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
FR 2584895	A	19870123	(198709)*		7
EP 213007	A	19870304	(198709)	FR	
				R: AT BE CH DE GB IT LI LU NL SE	
EP 213007	B	19900530	(199022)		
				R: AT BE CH DE GB IT LI LU NL SE	
DE 3671598	G	19900705	(199028)		

APPLICATION DETAILS:

Searcher : Shears 571-272-2528

PATENT NO	KIND	APPLICATION	DATE
FR 2584895	A	FR 1985-11107	19850719
EP 213007	A	EP 1986-401515	19860708

PRIORITY APPLN. INFO: FR 1985-11107 19850719

AN 1987-058561 [09] WPIDS

AB FR 2584895 A UPAB: 19930922

Storage stable, prepared bread is made by the american
 "sponge-dough" process in which a starting mixt is used comprising
flour, water, yeast, sugar, salt and fatty materials and the
 mixt is breaded twice, the dough being allowed to stand for several
 hours between the 2 breadings. This process is now improved by adding
gluten and an **emulsifier** before or during the first
 breading and adding a monoglyceride during the second breading.

Pref compsn comprises (in kg):-100 **flour**, 4-5 **glutan**,
 60-65l water, 3.5-5 yeast, 6-7 saccharose, 3 fatty materials, 2 salt,
 1-2 **emulsifier**, 1-2 monoglyceride, 3 lactoserum and
 0.0)15-0.030 ascorbic acid.

ADVANTAGE - The bread is free from chemical preservatives and is
 storage stable for 35-45 days.

0/0

ABEQ EP 213007 B UPAB: 19930922

A method of fabricating a prepacked loaf of bread with long shelf life
 in which the American bread making method is used called "sponge
 dough" in which a mixture is used including mainly **flour**,
 water, yeast, sugar, salt, fats and two successive keadings are
 carried out **separated** by a rest time for the dough of
 several hours, characterized in that **gluten** and an
emulsifier are added to the starting mixture before or during
 the first kneading phase, and a monoglyceride is added to the dough
 during the second kneading phase.

L14 ANSWER 35 OF 49 FSTA COPYRIGHT 2005 IFIS on STN

ACCESSION NUMBER: 1988(02):M0034 FSTA

TITLE: Functional properties of commercially produced
 wheat **flour** solubles.

AUTHOR: Oomah, B. D.; Mathieu, J. J.

CORPORATE SOURCE: Food Res. Cent., Agric. Canada, Ottawa, Ontario
 K1A 0C6, Canada

SOURCE: Canadian Institute of Food Science and Technology
 Journal, (1987) 20 (2) 81-88, 31 ref.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The physicochemical properties of wheat **flour** solubles (WFS)
 obtained by ultrafiltration and spray drying of a **gluten**
 -wheat starch plant effluent were investigated. Adjustment of pH of
 the retentate (from 3.0 to 5.5) before spray drying reduced globulin
 and acetic acid soluble protein fractions, lowered **emulsifying**
 and foaming properties, and increased the alkali soluble fraction.
 Wheat **flour** solubles exhibited a typical bell-shaped protein
 solubility curve with min. solubility at pH 6.0. Albumins comprised up
 to 50% of the total protein of WFS. No thermally induced rheological
 changes were exhibited by WFS; changes in starch pasting
 characteristics were observed when WFS were added at various levels to
 wheat starch. Treatment of the effluent with 250 p.p.m. H.sub.2O.sub.2
 reduced the **extractability** of polar lipids.

L14 ANSWER 36 OF 49 FSTA COPYRIGHT 2005 IFIS on STN

ACCESSION NUMBER: 1987(05):M0001 FSTA
 TITLE: Baking properties of NZ grown triticales.
 AUTHOR: Lorenz, K.; Ross, M.
 SOURCE: Food Technology in New Zealand, (1986) 21 (5)
 35-39, 8, 7 ref.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB 3 hexaploid triticales var. (Lasko, Karere, Aranui) grown in New Zealand were examined for kernel weight, proximate composition (moisture, ash, protein, falling number), milling characteristics, and baking properties (bread produced by the mechanical dough development and bulk fermentation processes, cakes and biscuits). Results were compared to those for 2 wheat var. (Oroua, Rongotea) also grown in New Zealand and are detailed in tables. They included the following. The chemical composition of the triticales was generally similar to that of wheat. **Flour extraction** rates of the triticales were low, the **flour** produced having the same protein content as wheat **flours**. The triticales performed poorly in bread baking tests and could be used only as a partial replacement for wheat **flour**. Use of 5% **gluten** in formulations improved triticale bread quality considerably but significantly increased production costs. Provided the triticale **flours** were properly chlorinated (≤ 0.7 ml Cl.sub.2/g), they produced good quality cakes. Use of additional **emulsifier** (1 or 2% lecithin) in formulations resulted in the production of good quality biscuits from triticale **flours**. Of the 3 var. examined, Aranui gave the most promising results in bread and cake baking tests.

L14 ANSWER 37 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 1985-200229 [33] WPIDS
 DOC. NO. CPI: C1985-087283
 TITLE: Preparation of udon noodles - using one to one mixture of rice and wheat **flour**.
 DERWENT CLASS: D11
 PATENT ASSIGNEE(S): (HIRY-N) HIRYU KK
 COUNTRY COUNT: 1
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 60126042	A	19850705	(198533)*		2
JP 62024061	B	19870526	(198724)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 60126042	A	JP 1983-232927	19831210

PRIORITY APPLN. INFO: JP 1983-232927 19831210

AN 1985-200229 [33] WPIDS

AB JP 60126042 A UPAB: 19930925

Udon noodles, a typical type of noodles in Japan, containing rice powder with ordinary wheat **flour** can be satisfactorily prepared by a recipe wherein a one to one mixture of wheat **flour** and rice powder pulverised finely in 250 meshes is beaten with an **emulsifying** oil and water and thus obtd. dough for noodles is

cut and dried to form dried noodles containing a good amount of rice powder.

ADVANTAGE - Disadvantages character of noodles made from rice powder and wheat **flour** by processes of prior art, e.g. **separation** of rice powder phase from wheat **flour** phase caused by the poor **gluten** formation ability of the rice powder, can be diminished by addition of an **emulsifying** oil into the dough for such noodles. Finely pulverised covered with **gluten** from wheat **flour** by the process and good character for forming smooth noodles can be achieved.

0/0

L14 ANSWER 38 OF 49 JAPIO (C) 2005 JPO on STN
 ACCESSION NUMBER: 1985-248142 JAPIO
 TITLE: PRODUCTION OF HIGH-PROTEIN CUT BUCKWHEAT
 VERMICELLI STRIP
 INVENTOR: UEKI YOSHIAKI; OBATA SHIZUO; TANIGUCHI HITOSHI
 PATENT ASSIGNEE(S): FUJI OIL CO LTD
 PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 60248142	A	19851207	Showa	A23L001-10

APPLICATION INFORMATION

STN FORMAT: JP 1984-105880 19840524
 ORIGINAL: JP59105880 Showa
 PRIORITY APPLN. INFO.: JP 1984-105880 19840524
 SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined
 Applications, Vol. 1985

AN 1985-248142 JAPIO

AB PURPOSE: To obtain the titled cut buckwheat vermicelli having a high nutritive value, sense of eating, flavor and hue, by using dried **flour** of an oil-in-water **emulsion** homogenized with soybean protein treated with a proteolytic enzyme, fat or oil or aqueous solvent as one of the raw materials.
 CONSTITUTION: Defatted soybeans are **extracted** with water, and reacted with an alkali protease to give a soybean protein solution treated with the proteolytic enzyme. A fat or oil, e.g. purified palm oil, and an aqueous solvent are added to the **emulsify** the solution. The resultant is then spray-dried and homogenized to afford dried **flour** of the oil-in-water **emulsion**. The dried **emulsion flour** is mixed and compounded with buckwheat **flour**, wheat **flour**, water, etc., and the resultant dough is rolled and cut to give the aimed cut buckwheat strips. Preferably, the content of the wheat protein in the raw materials is adjusted by using **gluten**.
 COPYRIGHT: (C)1985, JPO&Japio

L14 ANSWER 39 OF 49 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation
 on STN DUPLICATE 5

ACCESSION NUMBER: 1984:298377 BIOSIS
 DOCUMENT NUMBER: PREV198478034857; BA78:34857
 TITLE: TOAST BREAD FROM DEFATTED WHEAT **FLOUR**.
 AUTHOR(S): POMERANZ Y [Reprint author]; EL-BAYA A W; SEIBEL W;
 STEPHAN H
 CORPORATE SOURCE: US GRAIN MARKETING RES LAB, AGRIC RES SERVICE, US DEP
 AGRIC, MANHATTAN, KS 66502, USA
 SOURCE: Cereal Chemistry, (1984) Vol. 61, No. 2, pp. 136-140.
 CODEN: CECHAF. ISSN: 0009-0352.

Searcher : Shears 571-272-2528

DOCUMENT TYPE: Article
 FILE SEGMENT: BA
 LANGUAGE: ENGLISH

AB Toast bread was baked from nondefatted and from petroleum-ether defatted **flour** of medium protein content and strength. The formulation included 5% peanut oil or fat, 0.2-0.4% diacetyltartaric acid esters or lecithin, 0.1-0.2% polar wheat **flour** or wheat gluten lipids, 0.55% nonpolar wheat **flour** or wheat gluten lipids, and combinations of 5% fat or oil and **emulsifiers** or wheat **flour** lipids. Whereas peanut oil and fat were equally effective in increasing loaf volume, bread baked with fat had significantly superior crumb characteristics. Diacetyltrartaric acid esters were more effective than lecithin in increasing loaf volume and in improving crumb characteristics. Polar wheat **flour** lipids had an intermediate effect. Oil, in combination with **emulsifiers** or wheat **flour** polar lipids, improved loaf volume and crumb characteristics. Surfactants, alone or in combination with 5% oil or fat, had a more pronounced effect when added to defatted rather than to nondefatted **flour**. Increasing the amounts of surfactants within the limits used in this study increased loaf volume and usually improved bread crumb characteristics. When added to defatted **flour**, wheat **flour** polar lipids were more effective than nonpolar lipids, which were more detrimental than corresponding lipids **extracted** from vital commercial **gluten**. The difference is related to the composition of the extracted and fractionated lipids. Baking scores and softness retention were usually positively related to loaf volume.

L14 ANSWER 40 OF 49 JAPIO (C) 2005 JPO on STN
 ACCESSION NUMBER: 1983-126749 JAPIO
 TITLE: PREPARATION OF ARTIFICIAL TRUFFLE
 INVENTOR: HARA TATSURO
 PATENT ASSIGNEE(S): YAMATAKE MIKIO
 PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 58126749	A	19830728	Showa	A23L001-212

APPLICATION INFORMATION

STN FORMAT: JP 1982-9089 19820122
 ORIGINAL: JP57009089 Showa
 PRIORITY APPLN. INFO.: JP 1982-9089 19820122
 SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1983

AN 1983-126749 JAPIO

AB PURPOSE: To obtain an artificial truffle resembling the natural truffle, by mixing starchy material, protein and fibrous material all selected from vegetable substances, adding water to the mixture, adding vegetable oil dropwise to the mixture, and heating the **emulsified** stock solution.

CONSTITUTION: All of the main components are selected from vegetable substances, i.e. wheat **flour** or corn starch as a starchy material, soybean protein and **gluten** as a protein, and alginic acid **extracted** from sea weeds as fibrous material. Definite amounts of the components are thoroughly mixed together, added with an aqueous solution of table salt, sodium citrate, artificial seasoning, and pigment, added dropwise with an olive oil

under vigorous agitation with a mixer, added further with perfumery, vitamins, and minor nutrients, poured into a closed vessel, heated with boiling water or steam and quenched rapidly with cooling water. The product can be made in the form of truffle or vacuum packaged, canned, etc.

COPYRIGHT: (C)1983, JPO&Japio

L14 ANSWER 41 OF 49 FSTA COPYRIGHT 2005 IFIS on STN

ACCESSION NUMBER: 1984(07):G0544 FSTA
 TITLE: Sunflower protein: preparation, properties and uses in human food.
 AUTHOR: Kabirullah, M.
 CORPORATE SOURCE: Univ. of New South Wales, PO Box 1, Kensington 2033 (Sydney), NSW, Australia
 SOURCE: Dissertation Abstracts International, B, (1983) 44 (2) 446
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Sunflower **flour** (SF), prepared from dehulled and defatted sunflower seed meal, and sunflower protein isolate (SPI), prepared from SF by alkali solubilization and acid precipitation of the proteins, were analysed for proximate composition, essential amino acids and chlorogenic acid. SPI proteins were **extracted** with alkali, water and salt and characterized by gel filtration, electrophoresis, ultracentrifugation and HPLC. The functional properties (protein solubility, bulk density, fat and water absorption, hydration characteristics, **emulsification** and foaming properties) of SF, SPI and soy protein isolate were examined and compared. Addition of SF to beef sausages to replace wheat **gluten** and soy protein isolate resulted in increased **emulsion** stability and similar cooking quality. Addition of SF and SPI to biscuits as a replacement for wheat **flour** doubled the protein content but had little effect on acceptability.

L14 ANSWER 42 OF 49 FSTA COPYRIGHT 2005 IFIS on STN

ACCESSION NUMBER: 1981(12):S2148 FSTA
 TITLE: [Significance and role of proteins of animal and plant origin in the manufacture of meat products.]
 AUTHOR: Modic, P.
 CORPORATE SOURCE: Jugoslovenski Inst. za Tehnologiju Mesa, Belgrade, Yugoslavia
 SOURCE: Tehnologija Mesa, (1980) 21 (2) 35-39, 6 ref.
 DOCUMENT TYPE: Journal
 LANGUAGE: Serbo-Croatian
 SUMMARY LANGUAGE: English

AB Non-meat proteins are allowed in sausage **emulsions** in a majority of West European countries, the USA and Canada; the permissible amount is as much as 50% in some States. At present, the proteins used with meat products are: animal proteins from milk (sodium caseinate, dried skim milk) and blood and plant proteins from soy (**flour**, semolina, concentrate, isolate) cottonseed, flax seed, maize, rapeseed etc., wheat and maize (**gluten**); and microbial protein from brewers' yeast and bakers' yeast. Additions of proteins in the meat industry aim at enhancing nutritive and biological value relevant to the amount and composition of fatty acids; improving general appearance and other organoleptic properties by utilizing the functional properties of individual proteins; and improving costs structure. Solubility, hydration, gel-formation and **emulsifying** power of **separate** proteins are given.

L14 ANSWER 43 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
 ACCESSION NUMBER: 1979-75906B [42] WPIDS
 TITLE: High quality, rice powder-containing filament food
 production
 - from corn powder, rice powder, aqueous chlorella
extract solution and **emulsifying**
 agent(s).
 DERWENT CLASS: D13
 PATENT ASSIGNEE(S): (HIRA-I) HIRANUMA Y
 COUNTRY COUNT: 1
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 54113453	A	19790905	(197942)*		
JP 56035128	B	19810814	(198137)		

PRIORITY APPLN. INFO: JP 1978-19103 19780223

AN 1979-75906B [42] WPIDS

AB JP 54113453 A UPAB: 19930901

A raw material, consisting of 95-45 weight % corn powder(s), involving wheat **flour** and/or buckwheat **flour**, and 5-55 weight % rice powders is blended with 0.1-8.5 weight % chlorella **extract** solution with hot water and 0.2-1 weight % **emulsifying** agent(s) involving a fatty acid ester of glycerine, cane sugar and/or fatt sorbitan; and the resulting mixture is homogeneously mixed, kneaded, rolled and cut.

The raw material may contain sodium chloride, propylene-glycol, glycine, ethanol, polyphosphate salt and/or vitamins, but it is entirely free from a tackifying agent such as **gluten** or natural gum.

The process is used for producing Japanese "Udon" or "Soba" filament food, Chinese filament food, macaroni and spaghetti.

L14 ANSWER 44 OF 49 FSTA COPYRIGHT 2005 IFIS on STN

ACCESSION NUMBER: 1979(11):G0955 FSTA

TITLE: Non-soy proteins.

AUTHOR: Anon.

SOURCE: Food Engineering International, (1979) 4 (3) 28

DOCUMENT TYPE: Journal

LANGUAGE: English

SUMMARY LANGUAGE: German; French; Spanish

AB Developments in use of vegetable proteins other than soy in foods are briefly surveyed. Aspects discussed include use of low-gossypol cottonseed protein in bakery products; production of low-fat peanut **flours**; production of rapeseed concentrates with high water holding capacity and good **emulsifying** and whipping properties; production of defatted sunflower **flours** for extruded products and beef patties; and improved methods of **gluten separation** which retain **gluten** vitality.

L14 ANSWER 45 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 1977-83947Y [47] WPIDS

TITLE: **Emulsified** fat and oil for choux pastry -
 has an aqueous phase containing alkali casein, phosphate
 and

10/757246

glucose.
DERWENT CLASS: D11
PATENT ASSIGNEE(S): (FUKO) FUJI OIL CO LTD
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 52122671	A	19771015	(197747)*		

PRIORITY APPLN. INFO: JP 1976-39919 19760408

AN 1977-83947Y [47] WPIDS

AB JP 52122671 A UPAB: 19930901

The oil phase, prepared by adding **emulsifier** to molten edible oil, is mixed with an aqueous phase, and the mixture is rapidly cooled. The aqueous solution contains 10-30 w/w% alkali casein, 2-5 w/w% phosphate, and 0.5-2 w/w% glucose, and the phases are mixed so that the alkali casein content is 3-8 w/w% of compsn.

The prod. has excellent colour, form, volume and void, and can be prepared without particular skill. It is unnecessary to dissolve out **gluten** from **flour** and the mixing can be started instantaneously. A large amount of egg can be added without **separation** and excellent dough can be obtd.

L14 ANSWER 46 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 1976-38938X [21] WPIDS

TITLE: **Emulsified** oil compsn. - used for preparing crust of chou a la creme.

DERWENT CLASS: D13

PATENT ASSIGNEE(S): (FUKO) FUJI OIL CO LTD

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 51041472	A	19760407	(197621)*		
JP 56050529	B	19811130	(198152)		

PRIORITY APPLN. INFO: JP 1974-113182 19740930

AN 1976-38938X [21] WPIDS

AB JP 51041472 A UPAB: 19930901

An **emulsified** oil compsn. from which good crust of chou a la creme can be easily prepared without particular skill is provided. **Emulsifying** agent such as glycerin monofatty acid ester, sorbitan fatty acid ester etc. (0.05-2 weight%) is added to melted edible oils having m.pt. 25-45 degrees C to obtain the oil phase. Aqueous solution containing alkali casein (10-30 weight %) phosphate (0.3-2 weight %) and glucose (0.5-2 weight%) is the aqueous phase. The oil phase and the water phases are mixed so that the amount of alkali casein is 3-8 weight % of the total compsn. and the mixture is **emulsified** and cooled rapidly with kneading. By this method it is not required to **separate** out **gluten** from **flour**, therefore the mixing with **flour** can be performed instantaneously.

L14 ANSWER 47 OF 49 FSTA COPYRIGHT 2005 IFIS on STN

Searcher : Shears 571-272-2528

ACCESSION NUMBER: 1972(08):G0398 FSTA
 TITLE: [Process for manufacture and treatment of a ready-to-bake protein concentrate for baked products, and a protein concentrate produced by this method.]
 Verfahren zur Herstellung und Verarbeitung eines backfertigen Proteinkonzentrates fuer Back- und Teigwaren sowie nach diesem Verfahren hergestelltes Proteinkonzentrat.
 INVENTOR: Kautz, K.
 PATENT ASSIGNEE: Molkereigenossenschaft Dahlenburg eGmbH
 SOURCE: West German Patent Application, (1971) ref.
 PATENT INFORMATION: DE 2025023
 DOCUMENT TYPE: Patent
 LANGUAGE: German

AB The protein concentrate is made by dialysing concentrate milk with blood to **separate** milk salts and sugar, and the obtained viscous product, after further concentrate, is admixed with wheat **gluten**. The resulting **emulsion** is freeze-dried and granulated to a particle size of <1 mm. The concentrate has a protein content of 60-90% in DM and can be mixed with wheat or rye **flour** in a ratio of 1:1. After baking, the bread can be cut immediately, and keeps fresh for a long time. The concentrate is particularly suitable for diabetic bread.

L14 ANSWER 48 OF 49 FSTA COPYRIGHT 2005 IFIS on STN

ACCESSION NUMBER: 1970(05):M0377 FSTA
 TITLE: [Process for production of **flour** improvers.]
 Verfahren zur Herstellung von Quellmehlkompositionen.
 INVENTOR: Bock, W.; Lange, D.
 PATENT ASSIGNEE: Inst. fuer Ernaehrung, Potsdam-Rehbruecke, E. Germany
 SOURCE: East German (DDR) Patent, (1969) ref.
 PATENT INFORMATION: DD 58866
 DOCUMENT TYPE: Patent
 LANGUAGE: German

AB The invention covers the production of powdered or granulated **flour** improvers for use chiefly as baking aids. Starch-containing products are mixed with untreated or preferably decolorized pectin **extracts** or concentrates or with pectinates (e.g. calcium pectinate), liquefied with edible acids, and dried with simultaneous hydrolysis of the starch components. A pectin-amylose gel is formed. Pectin-protein complexes can be varied within the framework of the maximum bonding capacity, determined by the degree of esterification of the pectin components, through addition of proteins (gelatin-, milk-, **gluten**-, soya bean- and algal-based). For preparation of mash, malt **extract** is added as dilute wort. **Emulsifiers** and vitamins can later be added to the **flour** compositions at increased temperature

L14 ANSWER 49 OF 49 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 1973-14258U [10] WPIDS
 TITLE: Vegetable protein meat prodn - from rice bran and wheat protein.
 DERWENT CLASS: D13
 PATENT ASSIGNEE(S): (TAK-I) TAKAMIYA K
 COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 48000061	B		(197310)*		

PRIORITY APPLN. INFO: JP 1969-18721 19690313

AN 1973-14258U [10] WPIDS

AB JP 73000061 B UPAB: 19930831

Process comprises blending 1-15 pts.weight (based on hydrous state) of rice bran and 10 pts.et. (based on hydrous state) of wheat protein and then heat-treating to provide an artificial vegetable meat similar to animal meat. In an example, (hydrous)**gluten**, obtd. by **separating** from wheat **flour** or blending dried **gluten** powder with water, was mixed with defatted rice bran, and further blended well with dried egg white to obtain a lump containing tough fibrous tissue. The lump was soaked in water at 70-75 degrees C for about 10 mins. to remove the excess bran to give a prod. similar to animal meat. When oil, e.g., soybean oil, was used instead of hot water, there was obtd. an oily prod. The use of a soybean oil in which a little amount of aqueous solution containing a perfume, condiment, food dye and sorbic acid as preservative was **emulsified** in presence of **emulsifier**, e.g. lecithin, there was obtd. a protein containing the above ingredients.

FILE 'REGISTRY' ENTERED AT 12:17:01 ON 01 JUL 2005

E STARCH/CN 5

L15 1 S E3

FILE 'CAPLUS' ENTERED AT 12:17:12 ON 01 JUL 2005

L4 81 SEA FILE=REGISTRY ABB=ON PLU=ON GLUTELIN?/CN

L5 3920 SEA FILE=CAPLUS ABB=ON PLU=ON (L4 OR GLUTEN OR GLUTELIN) AND FLOUR

L6 1121 SEA FILE=CAPLUS ABB=ON PLU=ON L5 AND (EXTRACT? OR EXT## OR SEPARAT? OR SEP##)

L7 27 SEA FILE=CAPLUS ABB=ON PLU=ON L6 AND (EMULSIF? OR EMULSION)

L15 1 SEA FILE=REGISTRY ABB=ON PLU=ON STARCH/CN

L16 13 SEA FILE=CAPLUS ABB=ON PLU=ON L7 AND (L15 OR STARCH OR CORNSTARCH OR AMYLUM OR KEOFLO)

L17 10 L16 NOT L12

L17 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 14 Sep 2004

ACCESSION NUMBER: 2004:747452 CAPLUS

DOCUMENT NUMBER: 141:394448

TITLE: Study on furundu, a traditional Sudanese fermented roselle (Hibiscus sabdariffa L.) seed: Effect on in vitro protein digestibility, chemical composition, and functional properties of the total proteins

AUTHOR(S): Yagoub, Abu El-Gasim A.; Mohamed, Babiker E.; Ahmed, Abdel Halim R.; El Tinay, Abdullahi H.

CORPORATE SOURCE: Faculty of Agriculture, University of Zalingie, Zalingie, Sudan

10/757246

SOURCE: Journal of Agricultural and Food Chemistry (2004),
52(20), 6143-6150
CODEN: JAFCAU; ISSN: 0021-8561
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Furundu, a meat substitute, is traditionally prepared by cooking the karkade (Hibiscus sabdariffa L.) seed and then fermenting it for 9 days. Physicochem. and functional properties of raw and cooked seed and of furundu ferments were analyzed. Furundu preparation resulted in significant changes in karkade seed major nutrients. Total polyphenols and phytic acid were also reduced. The increase in total acidity and fat acidity coupled with a decrease in pH indicates microbial hydrolysis of the major nutrients; proteins, carbohydrates, and fats. In vitro digestibility of the seed proteins reached the maximum value (82.7%) at the sixth day of fermentation, but thereafter it significantly decreased. The effect of furundu preparation on N solubility profiles and functional properties, such as **emulsification** and foaming properties and other related parameters, is investigated in water and in 1 M NaCl **exts.** from defatted **flour** samples. The results show that cooking followed by fermentation affects proteins solubility in water and 1 M NaCl. The foaming capacity (FC) from the **flour** of raw seed decreased as a result of cooking. Fermentation for 9 days significantly increased the FC of the cooked seed, restoring the inherent value. Foam from fermented samples collapsed more rapidly during a period of 120 min as compared to the foam from raw and cooked karkade seeds; stability in 1 M NaCl was lower as compared to those in water. In water, the **emulsion** stability (ES) from the fermented samples was significantly higher than that of the raw seed **flour**. Addition of 1 M NaCl significantly decreased the ES of the fermented samples.

IT 9005-25-8, **Starch**, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(protein digestibility, chemical composition, and functional properties
of
furundu, traditional Sudanese fermented roselle (Hibiscus
sabdariffa L.) seed)

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L17 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 29 Apr 2004

ACCESSION NUMBER: 2004:347975 CAPLUS

DOCUMENT NUMBER: 140:356312

TITLE: Lipid-encapsulated functional bakery ingredients

INVENTOR(S): Duesterhoft, Eva-Maria; Minor, Marcel; Nikolai,
Karin; Hargreaves, Neil Graham; Huscroft, Simon
Christopher; Scharf, Udo

PATENT ASSIGNEE(S): CSM Nederland B.V., Neth.

SOURCE: Eur. Pat. Appl., 13 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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Searcher : Shears 571-272-2528

10/757246

EP 1413202 A1 20040428 EP 2002-79422 20021022
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
WO 2004037004 A2 20040506 WO 2003-NL711 20031022
WO 2004037004 A3 20041021
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB,
GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,
KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,
MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG,
SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN,
YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
NE, SN, TD, TG

PRIORITY APPLN. INFO.:

EP 2002-79422

A 20021022

AB A lipid-encapsulated or lipid-coated functional bakery ingredient consists of a granule suitable for use in the preparation of a dough. The granule comprises (a) a hydrophilic core ($\geq 5 \mu\text{m}$ diameter) containing a functional bakery ingredient (e.g., enzymes, oxidoreductants, acidulants, hydrocolloids, **starches**, yeast, sugars, water, flavors, or mixts. of these components); and (b) a lipophilic continuous layer encapsulating the core, which layer contains ≥ 50 weight% triglyceride-containing fat with a slip m.p. of $\geq 30^\circ$ and ≥ 1 weight% release agent (monoglycerides, diglycerides, datems, lactams, citrems, stearyl lactylates, polyglycerol esters, lecithins, sucrose esters, fatty acids, soaps and or mixts. of these components). Thus, Fungamyl 1600 is coated on a fluidized bed unit by using a fat blend consisting of 90% palm kernel hydrogenated stearins and 10% soy lecithin.

IT 9005-25-8, **Starch**, biological studies

RL: FFD (Food or feed use); PEP (Physical, engineering or chemical process); PYP (Physical process); BIOL (Biological study); PROC (Process); USES (Uses)

(lipid-encapsulated functional bakery ingredients)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 18 Apr 2003

ACCESSION NUMBER: 2003:300857 CAPLUS

DOCUMENT NUMBER: 138:309311

TITLE: Tablet formulation containing edible dough

INVENTOR(S): Leech, Wayne Federick; Razzak, Majid; Silcock, Patrick Joseph

PATENT ASSIGNEE(S): Bomac Laboratories Limited, N. Z.

SOURCE: PCT Int. Appl., 21 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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Searcher : Shears 571-272-2528

10/757246

WO 2003030863 A1 20030417 WO 2002-NZ207 20021009
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,
LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
EP 1450761 A1 20040901 EP 2002-773051 20021009
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
JP 2005508347 T2 20050331 JP 2003-533896 20021009
US 2005079264 A1 20050414 US 2003-491727 20021009
PRIORITY APPLN. INFO.: NZ 2001-513416 A 20011009

NZ 2002-521859 A 20020709

WO 2002-NZ207 W 20021009

AB An edible dough is described for use in an oral delivery method for administering a medicament to an animal. The dough is comprised of **flour**, soluble fiber, either oil or water and an optional range of addnl. ingredients thus forming a dough that can be molded around a medicament. A key improvement of the present invention dough is that it has extensibility characteristics that allow it to form a homogeneous mass with the medicament. As a result of the improved extensibility, it is very difficult for an animal to **sep.** out the medicament from the dough thus allowing easy administration of medicaments such as pills and tablets to an animal. Thus, a formulation contained urid **flour** 60.45, sodium methylparaben 0.1, sodium propylparaben 0.012, benzyl alc. 0.6, propylene glycol 6.04, peanut oil or sunflower oil 32.3, and beef **flour** 0.5%.

IT 9005-25-8, **Starch**, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(tablet formulation containing edible dough)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L17 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 03 May 2002

ACCESSION NUMBER: 2002:331965 CAPLUS

DOCUMENT NUMBER: 136:324538

TITLE: Co-processed **emulsifier**/carrier systems
for full-fat farinaceous baked goods

INVENTOR(S): Grazela, Andrew J.; Morrison, Neil; Amankonah,
Ofori; Coleman, Gerald

PATENT ASSIGNEE(S): CP Kelco U.S. Inc., USA

SOURCE: PCT Int. Appl., 11 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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Searcher	:	Shears	571-272-2528	
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WO 2002034052	A2	20020502	WO 2001-US32561	20011022
WO 2002034052	A3	20020808		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002013385	A5	20020506	AU 2002-13385	20011022
US 2002119232	A1	20020829	US 2001-982998	20011022
PRIORITY APPLN. INFO.:			US 2000-242439P	P 20001024
			WO 2001-US32561	W 20011022

AB **Emulsifiers** are co-processed with a carrier to produce a fine powder. The fine powder is added to the dry mix portion of full-fat baked good formulations, such as full-fat yellow layer cake formulations. Compared to the addition of dry dairy protein and powdered **emulsifiers sep.**, batter aeration is enhanced, cake volume is increased, a finer and more even crumb structure with softer texture is produced, and storage qualities are improved. Thus, a cake formulation includes sugar 31.2, cake **flour** 21.8, Simplese 720 2.6, dried whole eggs 2.0, baking powder 1.3, salt 0.7, xanthan gum 0.1, shortening 10.9, and water 29.4%.

IT **9005-25-8, Starch**, biological studies
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(co-processed **emulsifier** and carrier systems for full-fat farinaceous baked goods)

L17 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 21 Apr 2000

ACCESSION NUMBER: 2000:259972 CAPLUS

DOCUMENT NUMBER: 132:293042

TITLE: Encapsulation of sensitive liquid components into a matrix to obtain discrete shelf-stable particles

INVENTOR(S): Van Lengerich, Bernhard H.

PATENT ASSIGNEE(S): General Mills, Inc., USA

SOURCE: PCT Int. Appl., 56 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000021504	A1	20000420	WO 1999-US20905	19991006
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

10/757246

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
CA 2345815 AA 20000420 CA 1999-2345815 19991006
AU 9963872 A1 20000501 AU 1999-63872 19991006
AU 777977 B2 20041104
EP 1119345 A1 20010801 EP 1999-951433 19991006
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, LT, LV, FI, RO
JP 2002527375 T2 20020827 JP 2000-575480 19991006
PRIORITY APPLN. INFO.: US 1998-103700P P 19981009
US 1998-109696P P 19981124
US 1999-233443 A 19990120
WO 1999-US20905 W 19991006

AB A liquid encapsulant component which contains an active, sensitive encapsulant, such as a live microorganism or an enzyme dissolved or dispersed in a liquid plasticizer is admixed with a plasticizable matrix material. The matrix material is plasticizable by the liquid plasticizer and the encapsulation of the active encapsulant is accomplished at a low temperature and under low shear conditions. The active component is encapsulated and/or embedded in the plasticizable matrix component or material in a continuous process to produce discrete, solid particles. The liquid content of the liquid encapsulant component provides substantially all or completely all of the liquid plasticizer needed to plasticize the matrix component to obtain a formable, extrudable, cuttable, mixture or dough. Removal of liquid plasticizer prior to extrusion is not needed to adjust the viscosity of the mixture for formability. Release of an active component from the matrix may be delayed or controlled over time so that the active component is delivered when and where it is needed to perform its intended function. Controlled release, discrete, solid particles which contain an encapsulated and/or embedded component such as a heat sensitive or readily oxidizable pharmaceutically, biol., or nutritionally active component are continuously produced without substantial destruction of the matrix material or encapsulant.

IT 9005-25-8D, **Starch**, hydrolyzates

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(encapsulation of sensitive liquid components into matrix to obtain discrete shelf-stable particles)

IT 9005-25-8, **Starch**, biological studies

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(encapsulation of sensitive liquid components into matrix to obtain discrete shelf-stable particles)

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L17 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 19 Sep 1987

ACCESSION NUMBER: 1987:495581 CAPLUS

DOCUMENT NUMBER: 107:95581

TITLE: Functional properties of commercially produced
wheat **flour** solubles

AUTHOR(S): Oomah, B. D.; Mathieu, J. J.

Searcher : Shears 571-272-2528

CORPORATE SOURCE: Food Res. Cent., Agric. Canada, Ottawa, ON, K1A 0C6, Can.
 SOURCE: Canadian Institute of Food Science and Technology
 Journal (1987), 20(2), 81-8
 CODEN: CFSTB3; ISSN: 0315-5463

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The physicochem. properties of wheat **flour** solubles (WFS) obtained by ultrafiltration and spray-drying of a **gluten**-wheat **starch** plant effluent were investigated. Adjustment of pH of the retentate (from 3.0 to 5.5) before spray drying resulted in reduction of globulin and acetic acid soluble protein fractions, lower **emulsifying** and foaming properties, and an increase in alkali soluble fraction. Wheat **flour** solubles exhibited a typical bell-shaped protein solubility curve with min. solubility at pH 6.0.

Albumins

comprised up to 50% of the total protein of WFS. No thermally induced rheol. changes were exhibited by WFS, however, changes in **starch** pasting characteristics were observed when WFS were added at various levels to wheat **starch**. Treatment of the effluent with 250 ppm of hydrogen peroxide reduced the **extractability** of polar lipids.

IT 9005-25-8, **Starch**, biological studies

RL: BIOL (Biological study)

(gelatinization of, wheat **flour** solubles effect on)

L17 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 22 Apr 2001

ACCESSION NUMBER: 1965:25052 CAPLUS

DOCUMENT NUMBER: 62:25052

ORIGINAL REFERENCE NO.: 62:4521f-h

TITLE: Colorimetric determination of arginine in protein acid hydrolyzates obtained from wheat **flour**

AUTHOR(S): Roszek-Masiak, Krystyna

CORPORATE SOURCE: Agr. School, Wroclaw, Pol.

SOURCE: Chemia Analityczna (Warsaw, Poland) (1964), 9(5), 837-42

CODEN: CANWAJ; ISSN: 0009-2223

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB The method of Ceriotti and Spandio (CA 51, 18060a) was adapted for determining arginine in protein hydrolyzates from wheat **flour** [**gluten** (I), gliadin (II), glutenin (III)]. A sample, dried to constant weight, was washed with water until there was no reaction for **starch** (crude I after drying, .apprx.10% of the **flour**). One part was used for direct preparation of the acid hydrolyzate, whereas the other one for **extraction** with EtOH of II and III. Samples of I, II, and III (dried to constant weight), .apprx.250 mg., were treated with .apprx.5 cc. 6N HCl; the tubes were sealed under N, kept 24 hrs. over boiling water, and placed in small evaporating dishes in a vacuum desiccator with KOH, anhydrous CaCl₂, and P₂O₅. After evaporation of HCl, 2 cc. 10% 2-propanol was added; the solns. were neutralized with 2N NaOH to pH 6.4, and diluted with redistd. water to 5 cc. and centrifuged 20 min. at 4000 rpm. The supernatant was diluted 100-fold with water. About 10 cc. solution was mixed with 2 cc. fresh 8-quinolinol (0.4% in 95% EtOH; before use 120 cc. N NaOH is added to 10 cc. solution) and after 15 min. the mixture was treated with 1 cc. 0.15% NaOBr and thoroughly stirred. After 10 sec. 8 cc. BuOH was added and

the mixture stirred vigorously for 10 sec. The mixture was left for a few min. and the absorbance of the BuOH layer was measured at 505 mμ after 30 min. (to remove **emulsion**, 0.4 cc. absolute EtOH was added). Beer's law is valid for 4-20γ arginine. Considerable differences in the content of arginine in crude I (0.6-0.7 mg. %) can be explained in terms of biochem. changes. More arginine was found in crude III, .apprx.3% (2.2% in low-grade **flour**). Crude II contained .apprx.1.03% (.apprx.1.61% in low-grade **flour**).

L17 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 22 Apr 2001

ACCESSION NUMBER: 1962:485655 CAPLUS

DOCUMENT NUMBER: 57:85655

ORIGINAL REFERENCE NO.: 57:17147b-g

TITLE: **Starch** retrogradation in various bread products

AUTHOR(S): Pelshenke, P. F.; Hampel, G.

CORPORATE SOURCE: Cereal Ind., Detmold, Germany

SOURCE: Baker's Digest (1962), 36(No. 3), 48-57;85-6

CODEN: BADIAT; ISSN: 0191-6114

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB Retrogradation of **starch** was studied in staling of bread in the presence of different added ingredients. Absorption of I by formamide(NH₄)₂SO₄-thiosalicylic acid **extract** was measured by colorimetry. Retrogradation in **starch**-water and **flour**-water suspensions 1:2 (in pastes), 1:9 (in puddings or thickeners used for vegetables), and 1:19 (in soups) was completely different in various concns. and between **starch** and **flour**. The main phase of retrogradation in whole wheat bread occurred during the first 10 hrs. and swelling degree declined by about 50% in 24 hrs. Degree of swelling in bread of the low-protein com. **flours** declined to a relative value of 24, whereas bread of high-protein **flours** remained 60-66. High-protein **flours** yielded much softer crumb (800-840 Parameter units) in fresh bread than low-protein **flours** (560-650) but this difference disappeared after 24 hrs. Fat and **emulsifiers** (monoglyceride and polyoxyethylene sorbitan monostearate) acted as dispersing agents and decreased H₂O-binding capacity. They yielded superior values in first 6 hrs. following baking, but then retrogradation proceeded more rapidly than in the fat-free baked products. Higher **gluten flours** resulted in finely grained but firmer crumb and low **gluten** content **flours** in finer grain and softer crumb than the control fat-free bread. Sugar in bread had a minor effect. Compressibility and moisture content of bread decreased at 10-20% sugar. Rate of retrogradation was identical in first 6 hrs. Until 48 hrs., sugar-breads were superior. Dry milk solids affected **starch** retrogradation and swelling degree only slightly, but produced finer cell structure and softer crumb. Compressibility of egg yolk and egg white bread were definitely superior to the other breads, and retrogradation was identical with control. Addition of fresh mashed potatoes increased moisture of the crumb and rendered it more dense and accelerated firming of crumb structure during 1st 20 hrs. Retrogradation in potato **starch** was slower than in wheat **starch**. In rye bread the staling phenomenon differed considerably from that in wheat bread. Because of its dense but otherwise uniform grain, rye bread crumb required 6 times as much pressure to produce the same degree of compression. Rye bread

contained twice the quantity of H₂O-soluble and readily hydratable substances as did white bread. These higher levels of H₂O-soluble substances continued to exert a favorable effect on the taste organs even after the process of **starch** recrystallization had reached an advanced state in rye bread. Moisture of rye bread was higher than that of wheat bread. Acids of sour doughs promoted hydration of the protein complex, somewhat higher moisture was obtained in rye breads made with the higher ratios of sour dough. Compressibility showed little difference in either fresh or day-old breads. Retrogradation was slower with more acid breads, because of shorter amylose chains in the breads containing higher proportions of sour dough.

IT 9005-25-8, **Starch**
(in bread products, retrogradation of)

L17 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 16 Dec 2001

ACCESSION NUMBER: 1946:38548 CAPLUS

DOCUMENT NUMBER: 40:38548

ORIGINAL REFERENCE NO.: 40:7424a-b

TITLE: Chemical and technical examination of cements for
canned-food containers

AUTHOR(S): Alesi, Giuseppe

SOURCE: Industria Italiana delle Conserve (1944), 19, 1-14
CODEN: INICAN; ISSN: 0367-9284

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB These cements usually contain: rubber or latex, **gluten**,
starch, hydrophylic colloids, cellulose derivs., proteins
noncoagulable by heat, casein, tragacanth, wood **flour**, talc,
Al powder, colloidal clay, silicates, Fe oxides, etc. The chemical and
phys. examination may be made with the following detns.: volatile matter at
105° about 70%, residue at the temperature the cement is to be used,
i.e. 70° > 20%, pH > 7, even to 11, viscosity at 20°
≤ 100 Engler units, d. about 1.100, NH₃ (determined by distilling with
NaOH) commonly 0.5-1.0%, organic volatile matter, insol. in H₂O (determined

by distillation with H₂O vapor, in the presence of 1% citric acid), free S (by
extraction with Me₂CO) > 0.1%, antiseptics, ash, 10-15%, stability
of the **emulsion** (by centrifugation), resistance to dry heat,
to salt solns., and to organic acids, toxicol. examination, etc.

L17 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 16 Dec 2001

ACCESSION NUMBER: 1937:52025 CAPLUS

DOCUMENT NUMBER: 31:52025

ORIGINAL REFERENCE NO.: 31:7221i,7222a-g

TITLE: Fuel briquetting

AUTHOR(S): Strong, R. A.; Swartzman, E.; Burrough, E. J.

SOURCE: Can. Dept. Mines and Resources, Mines and Geol.
Branch Rept. (1937), No. 775, 100 pp.

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB The history of briquetting; processes for briquetting wood waste,
peat, lignite, bituminous coals, semi-anthracite, anthracite, coke
breeze and petroleum coke fines; binders, coal-tar pitch, petroleum
asphalt, bituminous **emulsions**, mixed binders with tar or
asphalt base, coal tar, petroleum oils, rosin, naphthalene, vegetable
binders, miscellaneous organic binders, sulfite liquor, clay, magnesia or
Sorel

cement, portland cement and lime; equipment used in briquetting: economics; and patents (224) are reviewed and discussed. Exptl. work on Canadian materials is presented. Lignite carbonized at 600° (best temperature) gave a residue (11,100 B. t. u.) that could be briquetted easily. Material -1/8 in. and 18% -40 mesh gave excellent briquets. Most suitable binders were coal-tar pitch, petroleum pitch, sulfite-liquor pitch, **starch**, **gluten** and straw jelly. Min. amount of coal-tar pitch necessary was 13 parts to 100 of lignite; 1 part waste **flour** screenings (up to certain limits) will replace 2 parts of pitch. Lignite-tar pitch was not satisfactory. Drying Ontario lignite with saturated steam gave a satisfactory lump fuel, 20% H₂O, 9000 B. t. u.; drying with flue gas gave a disintegrated slack. Woody and peaty constituents of Ontario lignite cannot be briquetted without a binder, the earthy portions can. The lignite was successfully carbonized at low temps. by the Lurgi (internal heating) or K. V. G. (external heating) systems. The char must be briquetted. Best briquets, from Lurgi char contained 9-10% pitch and 4% sulfite liquor; K. V. G. char required 10% pitch. Coals high in moisture cannot be used unless first dried. Clean coal requires less binder than dirty. A coking coal uses less binder and the resulting briquets are more satisfactory fuel. Sizing has a material effect on the amount of binder used. Crushing during mixing and especially during pressing produces fresh surfaces which are not coated with binder, resulting in weakness in the final briquet. The amount of binder needed varies with its nature, with the strength and d. of material bound (weak and porous particles require more), with size of material, with pressure, with thoroughness of mixing, with uniformity of feeding and with the skill of the operator. Most useful binders were petroleum asphalt and coal-tar pitch. The asphalt gave less objectionable smoke, but briquets were weaker. Briquets made with cellulosic substances cooked to a jelly with caustic were not waterproof and would not withstand weathering. Starchy materials were satisfactory except that they were not waterproof. Noncoking coals which do not swell when heated require 10% of good coking coal; swelling noncoking coals take much more. Best screen anal. approaches a straight line when screen sizes are plotted on a log basis, provided there is not too much coarse or fines; coarse coal gives a rough abradable briquet, fine takes excessive binder. D. and strength of a briquet can be increased by decreasing viscosity of binder in the mix as it goes to press by increasing the pressure, and by increasing the time the pressure is maintained. The lower the rank of a coal, the more difficult it is to briquet. Shatter index increases with increase in rank. Tests on briquetting Welsh anthracite screenings, charcoal breeze, petroleum coke breeze and British Columbia coals are described.

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO, CABA, AGRICOLA, FSTA, NUTRACEUT' ENTERED AT 12:18:27 ON 01 JUL 2005)

L18 21 S L16
L19 1 S L18 NOT L13
L20 1 DUP REM L19 (0 DUPLICATES REMOVED)

L20 ANSWER 1 OF 1 JICST-EPlus COPYRIGHT 2005 JST on STN
ACCESSION NUMBER: 940449193 JICST-EPlus
TITLE: Studies on the Baking Properties of Defatted Wheat
Flour.
AUTHOR: TSUTSUI TOMOMI; KANAI SETSUKO
CORPORATE SOURCE: Seitoku Jr. Coll. of Nutr.

10/757246

SOURCE: Seitoku Eiyo Tanki Daigaku Kiyo (Memoirs of Seitoku Junior College of Nutrition), (1993) vol. 24, pp. 1-8.
Journal Code: Y0158A (Fig. 5, Tbl. 7, Ref. 17)
ISSN: 0286-6366
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article
LANGUAGE: Japanese
STATUS: New

AB Functional properties of defatted **gluten** and non-defatted gluten were investigated and baking properties were estimated using reconstituted wheat **flour**. Defatted **gluten** indicated lower **emulsifying** properties than non-defatted **gluten** and the bread made from reconstituted **flour** (defatted **gluten** and defatted **starch**) showed the lowest loaf volume. (author abst.)

FILE 'MEDLINE' ENTERED AT 12:19:49 ON 01 JUL 2005

FILE LAST UPDATED: 30 JUN 2005 (20050630/UP). FILE COVERS 1950 TO DATE.

On December 19, 2004, the 2005 MeSH terms were loaded.

The MEDLINE reload for 2005 is now available. For details enter HELP RLOAD at an arrow prompt (=>). See also:

<http://www.nlm.nih.gov/mesh/>
http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html

OLDMEDLINE now back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2005 vocabulary.

This file contains CAS Registry Numbers for easy and accurate substance identification.

L21	3013	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	GLUTEN/CT
L22	2035	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	FLOUR/CT
L23	71	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	L21 AND L22
L24	7531	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	STARCH/CT
L25	11	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	L23 AND L24

L25 ANSWER 1 OF 11 MEDLINE on STN
ACCESSION NUMBER: 2004637618 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15612781
TITLE: Water-extractable and water-unextractable arabinoxylans affect gluten agglomeration behavior during wheat flour gluten-starch separation.
AUTHOR: Frederix Sofie A; Van Hoeymissen Klaartje E; Courtin Christophe M; Delcour Jan A
CORPORATE SOURCE: Laboratory of Food Chemistry, Katholieke Universiteit Leuven, Kasteelpark Arenberg 20, 3001 Leuven, Belgium.
SOURCE: Journal of agricultural and food chemistry, (2004 Dec 29) 52 (26) 7950-6.
Journal code: 0374755. ISSN: 0021-8561.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals

Searcher : Shears 571-272-2528

ENTRY MONTH: 200501
 ENTRY DATE: Entered STN: 20041223
 Last Updated on STN: 20050127
 Entered Medline: 20050126

ED Entered STN: 20041223
 Last Updated on STN: 20050127
 Entered Medline: 20050126

AB Water-extractable arabinoxylan (WE-AX) of variable molecular weight (MW) and water-unextractable arabinoxylan (WU-AX) were added to wheat flour to study their effect on gluten agglomeration in a dough and batter gluten-starch separation process with recovery of gluten from the batter with a set of vibrating sieves (400, 250, and 125 microm). Low MW WE-AX had almost no impact on the distribution of the gluten on the different sieves. High MW WE-AX decreased yields of the largest (400 microm sieve) gluten aggregates, more than their medium MW counterparts, indicating the importance of AX MW for their effect on gluten interactions. Correlations between the total level of gluten protein recovered on the three sieves and the batter extract viscosity as well as between the proportion of gluten protein recovered on the 400 microm sieve to that on the three sieves and the batter extract viscosity pointed to the importance of viscosity as an indicator for gluten agglomeration, as did the fact that another viscosity increasing plant polysaccharide (guar gum) also negatively influenced gluten agglomeration. However, the obtained data cannot rule out that AX and guar gum also exert steric effects on gluten agglomeration. WU-AX, present as discrete cell wall fragments, had a negative impact on the level of large gluten aggregates. Taken together, the results show that both native WE-AX and WU-AX detrimentally impact gluten agglomeration.

L25 ANSWER 2 OF 11 MEDLINE on STN
 ACCESSION NUMBER: 2003568109 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 14640581
 TITLE: Impact of xylanases with different substrate selectivity on gluten-starch separation of wheat flour.
 AUTHOR: Frederix Sofie A; Courtin Christophe M; Delcour Jan A
 CORPORATE SOURCE: Laboratory of Food Chemistry, Katholieke Universiteit Leuven, Kasteelpark Arenberg 20, 3001 Leuven, Belgium.. sofie.frederix@agr.kuleuven.ac.be
 SOURCE: Journal of agricultural and food chemistry, (2003 Dec 3) 51 (25) 7338-45.
 Journal code: 0374755. ISSN: 0021-8561.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200401
 ENTRY DATE: Entered STN: 20031216
 Last Updated on STN: 20040115
 Entered Medline: 20040114

ED Entered STN: 20031216
 Last Updated on STN: 20040115
 Entered Medline: 20040114

AB The influence on wheat flour gluten-starch separation of a xylanase from *Aspergillus aculeatus* (XAA) with hydrolysis selectivity toward water extractable arabinoxylan (WE-AX) and that is not inhibited by wheat flour xylanase inhibitors was compared to that of a xylanase from *Bacillus subtilis* (XBS) with hydrolysis selectivity toward water unextractable arabinoxylan (WU-AX) and that is inhibited by such

inhibitors. XAA improved gluten agglomeration through degradation of WE-AX and concomitant reduction in viscosity, which in the laboratory scale batter procedure with a set of vibrating sieves (400, 250, and 125 microm), increased protein recoveries on the 400 microm sieve. In contrast, XBS had a negative effect as it decreased gluten protein recovery on this sieve, probably as a result of the viscosity increase that accompanied WU-AX solubilization. Hence, it was active even if most likely a considerable part of its activity was prevented by xylanase inhibitors. A combination of XAA and XBS at a low dosage yielded a distribution of gluten proteins on the different sieves comparable to that of the control. At a high combined dosage, the gluten agglomeration was better than that with XAA alone, indicating that both WE-AX and WU-AX have a negative impact on gluten agglomeration. Finally, experiments with endoxylanase addition at different moments during the separation process suggest that the status of the arabinoxylan population during dough mixing is far less critical for its impact on gluten agglomeration than that during the batter phase.

L25 ANSWER 3 OF 11 MEDLINE on STN
 ACCESSION NUMBER: 2001353273 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 11170617
 TITLE: Effect of spelt wheat flour and kernel on bread composition and nutritional characteristics.
 AUTHOR: Skrabanja V; Kovac B; Golob T; Liljeberg Elmstahl H G; Bjorck I M; Kreft I
 CORPORATE SOURCE: Biotechnical Faculty, University of Ljubljana, P.O. Box 2995, SI-1001 Ljubljana, Slovenia.
 SOURCE: Journal of agricultural and food chemistry, (2001 Jan) 49 (1) 497-500.
 Journal code: 0374755. ISSN: 0021-8561.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200106
 ENTRY DATE: Entered STN: 20010625
 Last Updated on STN: 20010625
 Entered Medline: 20010621

ED Entered STN: 20010625

Last Updated on STN: 20010625

Entered Medline: 20010621

AB Spelt wheat seeds (*Triticum aestivum* subsp. *spelta* cv. Ostro) were used to obtain white spelt flour (64.5% yield), wholemeal spelt flour (100% yield), and scalded spelt wheat kernels. From these materials, white spelt wheat bread (WSB), wholemeal spelt wheat bread (WMSB), and spelt wheat bread with scalded spelt wheat kernels (SSKB) were made and were compared to the reference white wheat bread (WWB). The spelt wheat flours and breads contained more proteins in comparison to wheat flour and bread. Among the samples the highest rate of starch hydrolysis was noticed in WSB. During the first 30 min of incubation this particular bread was shown to have significantly more ($P < 0.05$) rapidly digestible starch than the WMSB and later on also more starch than in WWB and SSKB, respectively. The WMSB had the lowest hydrolysis index ($HI = 95.7$). However, the result did not differ significantly from that in the reference common wheat bread. On the other hand, the most refined spelt wheat flour resulted in a bread product (WSB) that was statistically withdrawn ($P < 0.05$) as one with the highest HI (112.6).

L25 ANSWER 4 OF 11 MEDLINE on STN
 ACCESSION NUMBER: 1999206412 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 10192194
 TITLE: Wheat starch-containing gluten-free flour products in the treatment of coeliac disease and dermatitis herpetiformis. A long-term follow-up study.
 AUTHOR: Kaukinen K; Collin P; Holm K; Rantala I; Vuolteenaho N; Reunala T; Maki M
 CORPORATE SOURCE: Dept. of Medicine, Tampere University Hospital, Finland.
 SOURCE: Scandinavian journal of gastroenterology, (1999 Feb) 34 (2) 163-9.
 Journal code: 0060105. ISSN: 0036-5521.
 PUB. COUNTRY: Norway
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199905
 ENTRY DATE: Entered STN: 19990525
 Last Updated on STN: 19990525
 Entered Medline: 19990511

ED Entered STN: 19990525
 Last Updated on STN: 19990525
 Entered Medline: 19990511

AB BACKGROUND: We investigated whether wheat starch-based gluten-free products are safe in the treatment of gluten intolerance. METHODS: The study involved 41 children and adults with coeliac disease and 11 adults with dermatitis herpetiformis adhering to a gluten-free diet for 8 years on average. Thirty-five newly diagnosed coeliac patients at diagnosis and 6 to 24 months after the start of a gluten-free diet and 27 non-coeliac patients with dyspepsia were investigated for comparison. Daily dietary gluten and wheat starch intake were calculated. Small-bowel mucosal villous architecture, CD3+, alphabeta+, and gammadelta+ intraepithelial lymphocytes, mucosal HLA-DR expression, and serum endomysial, reticulin, and gliadin antibodies were investigated. RESULTS: Forty of 52 long-term-treated patients adhered to a strict wheat starch-based diet and 6 to a strict naturally gluten-free diet; 6 patients had dietary lapses. In the 46 patients on a strict diet the villous architecture, enterocyte height, and density of alphabeta+ intraepithelial lymphocytes were similar to those in non-coeliac subjects and better than in short-term-treated coeliac patients. The density of gammadelta(+) cells was higher, but they seemed to decrease over time with the gluten-free diet. Wheat starch-based gluten-free flour products did not cause aberrant upregulation of mucosal HLA-DR. The mucosal integrity was not dependent on the daily intake of wheat starch in all patients on a strict diet, whereas two of the six patients with dietary lapses had villous atrophy and positive serology. CONCLUSION: Wheat starch-based gluten-free flour products were not harmful in the treatment of coeliac disease and dermatitis herpetiformis.

L25 ANSWER 5 OF 11 MEDLINE on STN
 ACCESSION NUMBER: 93324497 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 8332585
 TITLE: Storage changes in the quality of sound and sprouted flour.
 AUTHOR: Sur R; Nagi H P; Sharma S; Sekhon K S
 CORPORATE SOURCE: Department of Food Science & Technology, Punjab

SOURCE: Agricultural University, Ludhiana, India.
 Plant foods for human nutrition (Dordrecht, Netherlands), (1993 Jul) 44 (1) 35-44.
 Journal code: 8803554. ISSN: 0921-9668.

PUB. COUNTRY: Netherlands
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199308
 ENTRY DATE: Entered STN: 19930826
 Last Updated on STN: 19930826
 Entered Medline: 19930816

ED Entered STN: 19930826
 Last Updated on STN: 19930826
 Entered Medline: 19930816

AB Sound and sprouted flours (24 and 48 hr) from bread wheat (WL-1562), durum wheat (PBW-34) and triticale (TL-1210) were stored at room temperature (34.8 degrees C) and relative humidity (66.7%) for 0, 45, 90 and 135 days to assess the changes in physico-chemical and baking properties. Protein, gluten, sedimentation value, starch and crude fat decreased during storage in all the samples; however, the decrease was more in sprouted flours. Free amino acids, proteolytic activity, diastatic activity and damaged starch decreased with increase in storage period. Total sugars and free fatty acids increased more rapidly in the flours of sprouted wheats during 135 days of storage. Loaf volume of breads decreased during storage in both sound and sprouted flour but the mean percent decrease in loaf volume was more in stored sound flours. Aging of sprouted flour for 45 days improved the cookie and cake making properties but further storage was of no value for these baked products. Chapati making properties of stored sound and sprouted flour were inferior to that of fresh counterparts.

L25 ANSWER 6 OF 11 MEDLINE on STN
 ACCESSION NUMBER: 87302291 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 3621609
 TITLE: Detection of wheat gliadin contamination of gluten-free foods by a monoclonal antibody dot immunobinding assay.
 AUTHOR: Freedman A R; Galfre G; Gal E; Ellis H J; Ciclitira P J
 SOURCE: Clinica chimica acta; international journal of clinical chemistry, (1987 Jul 15) 166 (2-3) 323-8.
 Journal code: 1302422. ISSN: 0009-8981.

PUB. COUNTRY: Netherlands
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 198710
 ENTRY DATE: Entered STN: 19900305
 Last Updated on STN: 19900305
 Entered Medline: 19871022

ED Entered STN: 19900305
 Last Updated on STN: 19900305
 Entered Medline: 19871022

AB Unfractionated wheat gliadin was used to produce murine monoclonal antibodies to gliadin. A dot immunobinding assay, using these antibodies, was developed to detect possible gliadin contamination of nominally gluten-free flour, using dilute ethanol extracts spotted onto nitrocellulose membranes. The sensitivity of the assay was less than 10 micrograms/ml of unfractionated gliadin which permitted the detection of trace amounts of gliadin present in certain wheat starch

based 'gluten-free' products. The assay detected not only wheat gliadin, but also prolamine extracts of rye, barley and oats; maize, soya and potato extracts as well as the control proteins casein and ovalbumin, gave negative results. The assay is of value as a simple and rapid method of screening foods for their suitability for consumption by patients with coeliac disease.

L25 ANSWER 7 OF 11 MEDLINE on STN
 ACCESSION NUMBER: 82049658 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 6170488
 TITLE: Staling white pan bread: fundamental causes.
 AUTHOR: Kulp K; Ponte J G Jr
 SOURCE: Critical reviews in food science and nutrition, (1981)
 15 (1) 1-48. Ref: 125
 Journal code: 8914818. ISSN: 1040-8398.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 General Review; (REVIEW)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 198201
 ENTRY DATE: Entered STN: 19900316
 Last Updated on STN: 19900316
 Entered Medline: 19820109

ED Entered STN: 19900316

Last Updated on STN: 19900316

Entered Medline: 19820109

AB Staling, as it is applied to bakery foods, is a generic term covering a number of changes that occur in the products during normal storage. Consumers judge staleness by direct perception, which provides a subjective estimate that represents an unconscious integration of many factors. This review will discuss the main components of staling: (1) physicochemical changes of bread and related products (firming and texture deterioration of crumb and loss of crispness of crust) and (2) flavor changes. Section I will cover current theories of changes of firming and textural changes. The starch component of flour is generally considered to be responsible for these staling reactions. Consequently, the physicochemical involvement of amylose, amylopectin in these reactions will be fully discussed and current evidence supporting these theories (rheological, chemical, X-rays) will be given. Interactions of starch and surface active agents and other complexing compounds will be presented in Section II. In Section III, contribution of minor flour components and bakery food ingredients will be evaluated. Section IV will focus on organoleptic deterioration of products, presenting flavor changes that were observed during staling bread. Section V will discuss structural changes of breads caused by enzymolysis during bread production and storage as related to staling. Following the theoretical section (Sections I to V), Section VI will focus on practical control of staling. This discussion will cover the following factors: formulation, surfactants, enzymes, storage, freezing, and packaging.

L25 ANSWER 8 OF 11 MEDLINE on STN
 ACCESSION NUMBER: 81118795 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 7462926
 TITLE: Cosmetic ingredients and their safety assessment.
 Reports issued by the Cosmetic Ingredient Review.
 AUTHOR: Anonymous
 SOURCE: Journal of environmental pathology and toxicology,

10/757246

(1980 Oct) 4 (4) 1-170.

Journal code: 7801245. ISSN: 0146-4779.

PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198104
ENTRY DATE: Entered STN: 19900316
Last Updated on STN: 19980206
Entered Medline: 19810424

ED Entered STN: 19900316
Last Updated on STN: 19980206
Entered Medline: 19810424

L25 ANSWER 9 OF 11 MEDLINE on STN
ACCESSION NUMBER: 76143174 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1254877
TITLE: Comprehensive evaluation of fatty acids in foods. VI.
Cereal products.

AUTHOR: Weihrauch J L; Kinsella J E; Watt B K
SOURCE: Journal of the American Dietetic Association, (1976
Apr) 68 (4) 335-40.
Journal code: 7503061. ISSN: 0002-8223.

PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 197606
ENTRY DATE: Entered STN: 19900313
Last Updated on STN: 19900313
Entered Medline: 19760602

ED Entered STN: 19900313
Last Updated on STN: 19900313
Entered Medline: 19760602

AB Information on total lipid and fatty acid composition or cereal grains
and their products used for food has been collated in a comprehensive
search of world literature published since 1960. Data considered most
suitable for use for representing contents of total lipids and fatty
acids have been tabulated and are presented. In developing these
data, attention was given to stability and other chemical properties
of the lipids, lipid composition of the different parts of the grain,
and to such factors as genetics, production, processing, and
analytical methods used in extracting and determining the fat and
fatty acids in cereal products.

L25 ANSWER 10 OF 11 MEDLINE on STN
ACCESSION NUMBER: 74252171 MEDLINE
DOCUMENT NUMBER: PubMed ID: 4209120
TITLE: Chemistry of wheat proteins and the nature of the
damaging substances.
AUTHOR: Evans D J; Patey A L
SOURCE: Clinics in gastroenterology, (1974 Jan) 3 (1) 199-211.
Ref: 45
Journal code: 0365261. ISSN: 0300-5089.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals

Searcher : Shears 571-272-2528

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ENTRY MONTH: 197408
ENTRY DATE: Entered STN: 19900310
Last Updated on STN: 19900310
Entered Medline: 19740821

ED Entered STN: 19900310
Last Updated on STN: 19900310
Entered Medline: 19740821

L25 ANSWER 11 OF 11 MEDLINE on STN
ACCESSION NUMBER: 70137829 MEDLINE
DOCUMENT NUMBER: PubMed ID: 4190819
TITLE: Selective staining of protein and starch in wheat flour
and its products.
AUTHOR: Flint F O; Moss R
SOURCE: Stain technology, (1970 Mar) 45 (2) 75-9.
Journal code: 0404535. ISSN: 0038-9153.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197004
ENTRY DATE: Entered STN: 19900101
Last Updated on STN: 19900101
Entered Medline: 19700428

ED Entered STN: 19900101
Last Updated on STN: 19900101
Entered Medline: 19700428

FILE 'HOME' ENTERED AT 12:20:35 ON 01 JUL 2005

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(FILE 'CAPLUS' ENTERED AT 12:05:49 ON 01 JUL 2005)

DEL HIS Y

L1 3920 SEA ABB=ON PLU=ON (GLUTEN OR GLUTELIN) AND FLOUR
L*** DEL 824 S L1 AND (EXTRACT? OR EXT##)
L2 1121 SEA ABB=ON PLU=ON L1 AND (EXTRACT? OR EXT## OR SEPARAT?
OR SEP##)
L*** DEL 27 S L2 AND EMULS?
D KWIC
D KWIC 2
L3 27 SEA ABB=ON PLU=ON L2 AND (EMULSIF? OR EMULSION)

FILE 'REGISTRY' ENTERED AT 12:09:06 ON 01 JUL 2005

E GLUTEN/CN 5

E GLUTELIN/CN 5

L4 81 SEA ABB=ON PLU=ON GLUTELIN?/CN

FILE 'REGISTRY' ENTERED AT 12:09:53 ON 01 JUL 2005

FILE 'CAPLUS' ENTERED AT 12:09:58 ON 01 JUL 2005

L5 3920 SEA ABB=ON PLU=ON (L4 OR GLUTEN OR GLUTELIN) AND FLOUR
L6 1121 SEA ABB=ON PLU=ON L5 AND (EXTRACT? OR EXT## OR SEPARAT?
OR SEP##)
L7 27 SEA ABB=ON PLU=ON L6 AND (EMULSIF? OR EMULSION)

FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH,
JICST-EPLUS, JAPIO, CABA, AGRICOLA, FSTA, NUTRACEUT' ENTERED AT
12:11:17 ON 01 JUL 2005

L8 56 SEA ABB=ON PLU=ON L7
L9 50 DUP REM L8 (6 DUPLICATES REMOVED)

FILE 'CAPLUS' ENTERED AT 12:13:03 ON 01 JUL 2005

L10 1606 SEA ABB=ON PLU=ON (L4 OR GLUTEN OR GLUTELIN) (S) (EXTRACT?
OR EXT## OR SEPARAT? OR SEP##)
L11 634 SEA ABB=ON PLU=ON L10 AND FLOUR
L12 11 SEA ABB=ON PLU=ON L11 AND (EMULSIF? OR EMULSION)
L*** DEL 1 S L12 AND FINCH ?/AU
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D 1-11 .BEVSTR

FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH,
JICST-EPLUS, JAPIO, CABA, AGRICOLA, FSTA, NUTRACEUT' ENTERED AT
12:15:18 ON 01 JUL 2005

L13 54 SEA ABB=ON PLU=ON L12
L14 49 DUP REM L13 (5 DUPLICATES REMOVED)
D 1-49 IBIB ABS

FILE 'REGISTRY' ENTERED AT 12:17:01 ON 01 JUL 2005

E STARCH/CN 5

L15 1 SEA ABB=ON PLU=ON STARCH/CN

FILE 'CAPLUS' ENTERED AT 12:17:12 ON 01 JUL 2005

L16 13 SEA ABB=ON PLU=ON L7 AND (L15 OR STARCH OR CORNSTARCH OR
AMYLUM OR KEOFLO)
D QUE L16

Searcher : Shears 571-272-2528

10/757246

L17 10 SEA ABB=ON PLU=ON L16 NOT L12
D 1-10 .BEVSTR

FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH,
JICST-EPLUS, JAPIO, CABA, AGRICOLA, FSTA, NUTRACEUT' ENTERED AT
12:18:27 ON 01 JUL 2005

L18 21 SEA ABB=ON PLU=ON L16
L19 1 SEA ABB=ON PLU=ON L18 NOT L13
L20 1 DUP REM L19 (0 DUPLICATES REMOVED)
D IBIB ABS

FILE 'MEDLINE' ENTERED AT 12:19:49 ON 01 JUL 2005

E GLUTEN/CN 5
E GLUTEN/CT 5
L21 3013 SEA ABB=ON PLU=ON GLUTEN/CT
E FLOUR/CT 5
L22 2035 SEA ABB=ON PLU=ON FLOUR/CT
L23 71 SEA ABB=ON PLU=ON L21 AND L22
E STARCH/CT 5
L24 7531 SEA ABB=ON PLU=ON STARCH/CT
L25 11 SEA ABB=ON PLU=ON L23 AND L24
D QUE
D 1-11 .BEVERLYMED

FILE 'HOME' ENTERED AT 12:20:35 ON 01 JUL 2005

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The MEDLINE reload for 2005 is now available. For details enter HELP RLOAD at an arrow prompt (=>). See also:

<http://www.nlm.nih.gov/mesh/>
http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html

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FILE COVERS 1969 TO DATE.

CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

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FILE RELOADED: 19 October 2003.

FILE EMBASE

FILE COVERS 1974 TO 30 Jun 2005 (20050630/ED)

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FILE LAST UPDATED: 29 JUN 2005 <20050629/UP>
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FILE COVERS 1973 TO 25 May 2005 (20050525/ED)

FILE SCISEARCH
FILE COVERS 1974 TO 29 Jun 2005 (20050629/ED)

FILE JICST-EPLUS
FILE COVERS 1985 TO 27 JUN 2005 (20050627/ED)

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FILE LAST UPDATED: 8 JUN 2005 <20050608/UP>
FILE COVERS APR 1973 TO FEBRUARY 24, 2005

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FILE COVERS 1969 TO DATE.

FILE NUTRACEUT

FILE LAST UPDATED: 29 JUN 2005

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